FM/AM RECEIVER

KR-A4060/A5060

SERVICE MANUAL

KENWOOD

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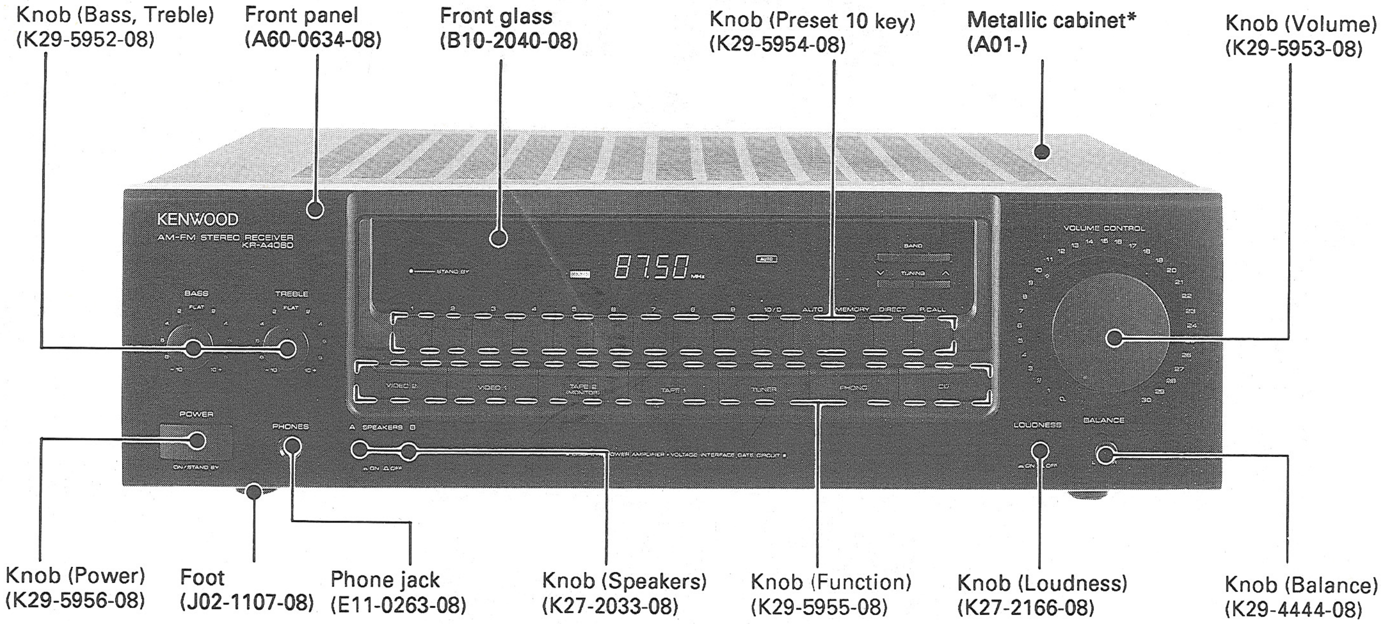

Knob (Bass, Treble)
(K29-5952-08)
Front panel
(A60-0634-08)
Front glass
(B10-2040-08)
Knob (Preset 10 key)
(K29-5954-08)
Metallic cabinet*
(A01-)
Knob (Volume)
(K29-5953-08)
Knob (Power)
(K29-5956-08)
Foot
(J02-1107-08)
Phone jack
(E11-0263-08)
Knob (Speakers)
(K27-2033-08)
Knob (Function)
(K29-5955-08)
Knob (Loudness)
(K27-2166-08)
Knob (Balance)
(K29-4444-08)

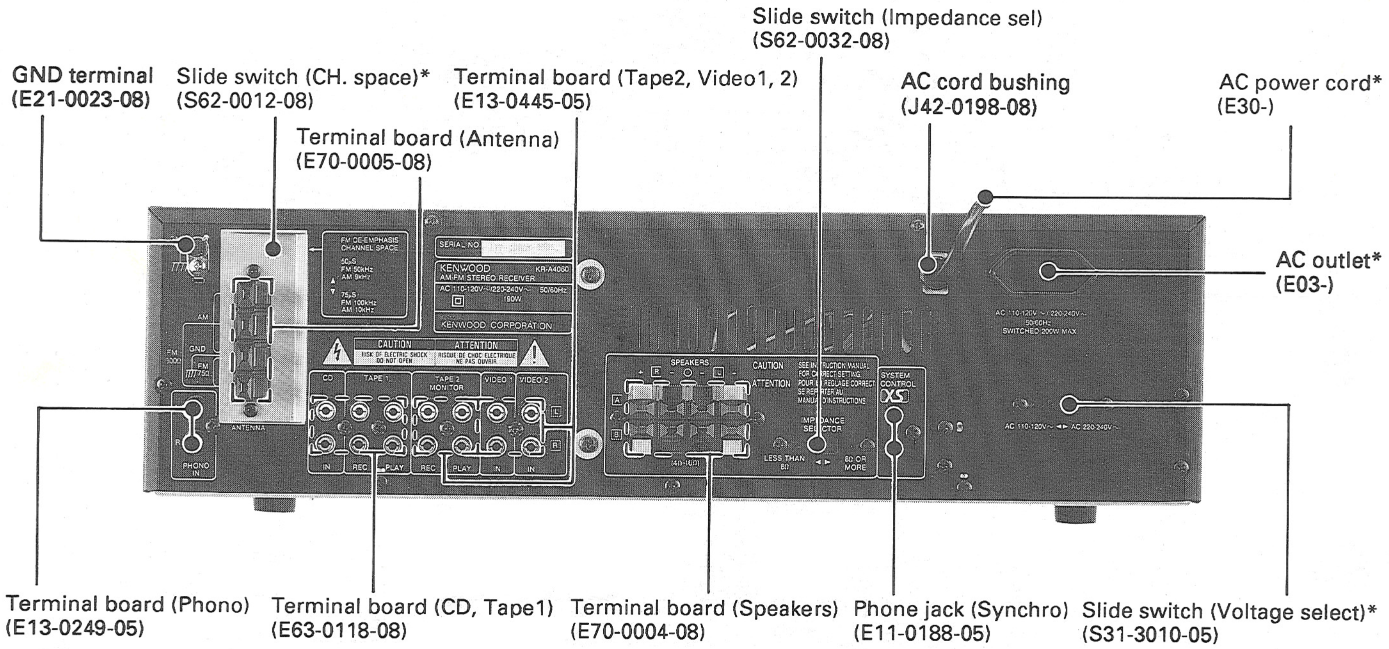

Slide switch (Impedance sel)
(S62-0032-08)
GND terminal
(E21-0023-08)
Slide switch (CH. space)*
(S62-0012-08)
Terminal board (Tape2, Video1, 2)
(E13-0445-05)
AC cord bushing
(J42-0198-08)
AC power cord*
(E30-)
Terminal board (Antenna)
(E70-0005-08)
AC outlet*
(E03-)
Terminal board (Phono)
(E13-0249-05)
Terminal board (CD, Tape1)
(E63-0118-08)
Terminal board (Speakers)
(E70-0004-08)
Phone jack (Synchro)
(E11-0188-05)
Slide switch (Voltage select)*
(S31-3010-05)

Photo is KR-A4060 (M type).

***Refer to parts list on page 35.**

CONTENTS / EXTERNAL VIEW : KR-A5060

CONTENTS

EXTERNAL VIEW : KR-A5060 (Except E, T type) ... 2
EXTERNAL VIEW : KR-A5060 (E, T type) ... 3
REMOTE CONTROL OPERATION ... 4
DISASSEMBLY FOR REPAIR ... 5
CIRCUIT DESCRIPTION ... 6
SPECIFICATIONS ... 87
ACCESSORIES ... BACK COVER

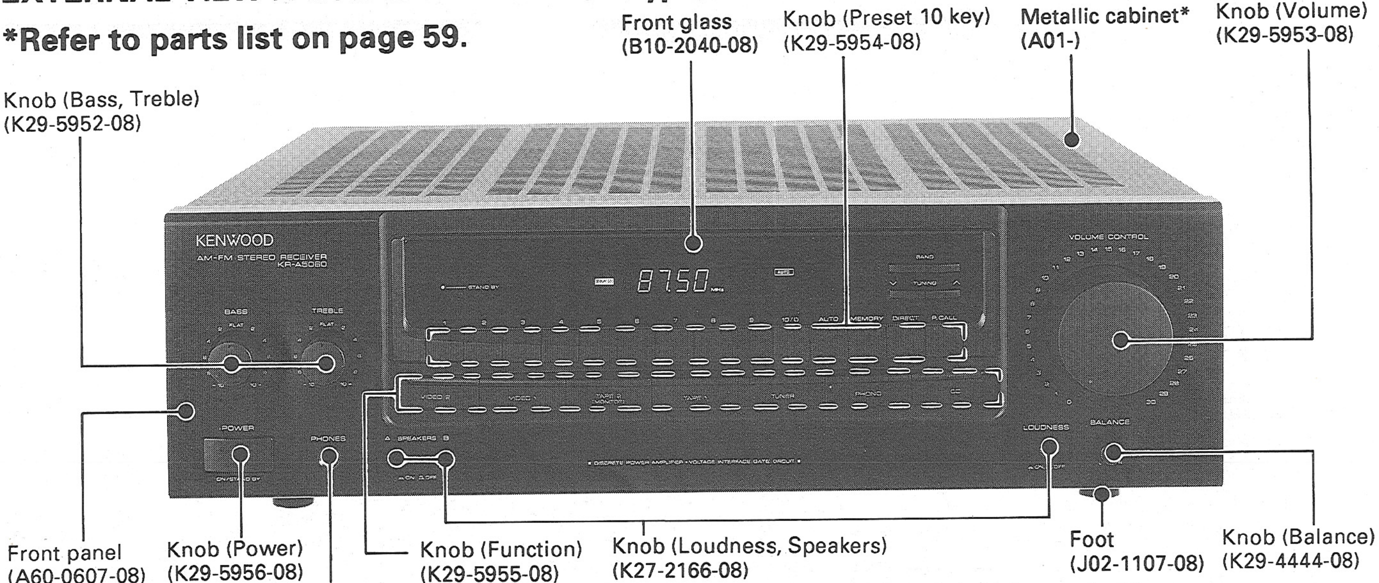
KR-A4060 (EXCEPT E, T type)
- BLOCK DIAGRAM ... 15
- ADJUSTMENT/AJUSTES ... 17
- WIRING DIAGRAM ... 20
- PC BOARD (COMPONENT SIDE VIEW) ... 21
- SCHEMATIC DIAGRAM ... 25
- EXPLODED VIEW ... 33
- PARTS LIST ... 35

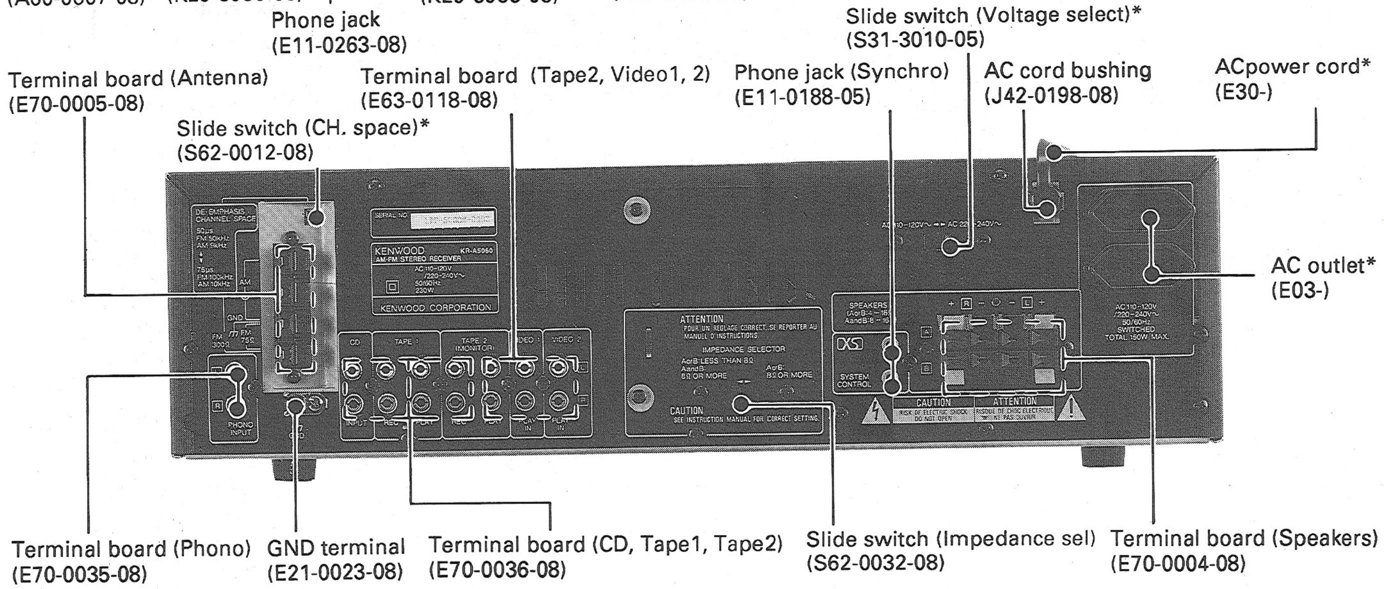
KR-A5060 (EXCEPT E, T type)
- BLOCK DIAGRAM ... 39
- ADJUSTMENT/AJUSTES ... 41
- WIRING DIAGRAM ... 44
- PC BOARD (COMPONENT SIDE VIEW) ... 45
- SCHEMATIC DIAGRAM ... 49
- EXPLODED VIEW ... 57
- PARTS LIST ... 59

KR-A4060/A5060 (E, T type)
- BLOCK DIAGRAM ... 63
- ADJUSTMENT/AJUSTES ... 65
- WIRING DIAGRAM ... 68
- PC BOARD (COMPONENT SIDE VIEW) ... 69
- SCHEMATIC DIAGRAM ... 73
- EXPLODED VIEW ... 81
- PARTS LIST ... 83

EXTERNAL VIEW : Photo is KR-A5060 (M type).

***Refer to parts list on page 59.**


Front glass (B10-2040-08)
Knob (Preset 10 key) (K29-5954-08)
Metallic cabinet* (A01-)
Knob (Volume) (K29-5953-08)
Knob (Bass, Treble) (K29-5952-08)
KENWOOD
AM-FM STEREO RECEIVER KR-A5060
Front panel (A60-0607-08)
Knob (Power) (K29-5956-08)
Phone jack (E11-0263-08)
Knob (Function) (K29-5955-08)
Knob (Loudness, Speakers) (K27-2166-08)
Foot (J02-1107-08)
Knob (Balance) (K29-4444-08)


Slide switch (Voltage select)* (S31-3010-05)
Terminal board (Antenna) (E70-0005-08)
Terminal board (Tape2, Video1, 2) (E63-0118-08)
Slide switch (CH. space)* (S62-0012-08)
Phone jack (Synchro) (E11-0188-05)
AC cord bushing (J42-0198-08)
ACpower cord* (E30-)
AC outlet* (E03-)
KENWOOD AM-FM STEREO RECEIVER KR-A5060
KENWOOD CORPORATION
Terminal board (Phono) (E70-0035-08)
GND terminal (E21-0023-08)
Terminal board (CD, Tape1, Tape2) (E70-0036-08)
Slide switch (Impedance sel) (S62-0032-08)
Terminal board (Speakers) (E70-0004-08)

EXTERNAL VIEW : KR-A5060

Knob (Bass, Treble)
(K29-5952-08)

Front panel
(A60-0633-08) : 4
(A60-0632-08) : 5

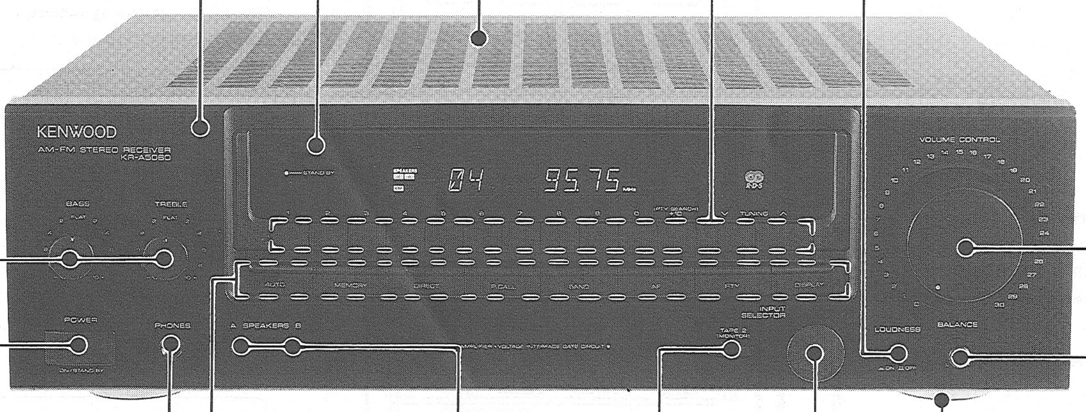
Front glass
(B10-2040-08)

Metallic cabinet
(A01-3167-08)

Knob (Preset)
(K29-5954-08)

Knob (Loudness)
(K27-2166-08)

Knob (Volume ass'y)
(K29-5953-08)



Knob (Power)
(K29-5956-08)

Phone jack
(E11-0263-08)

Knob (Function)
(K29-5955-08)

Knob (Speakers)
(K29-5998-08)

Knob (Tape2)
(K29-5996-08)

Knob (Input selector)
(K27-2111-08)

Foot
(J02-1099-08)

Knob (Balance)
(K29-4444-08)

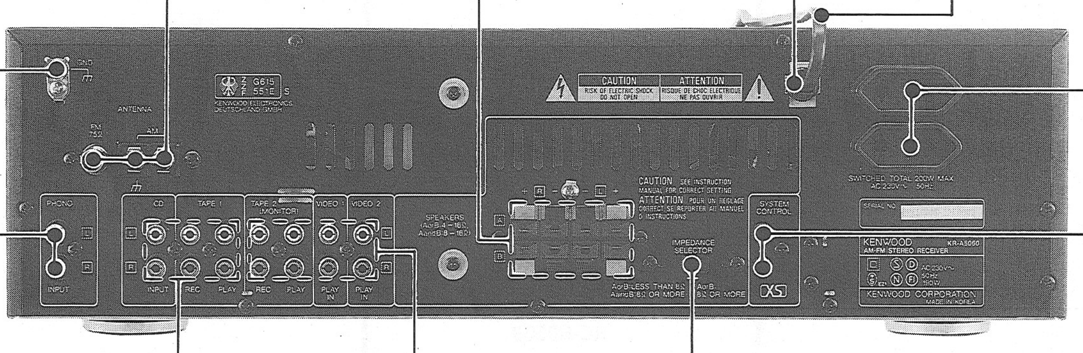
GND terminal ass'y
(E21-0023-08)

Terminal board (Antenna)
(E70-0023-08)

Lock terminal board (Speakers)
(E70-0004-08)

AC cord bushing
(J42-0198-08)

AC power cord*
(E30-)



AC outlet*
(E03-)

Phono jack (Phono)
(E70-0035-08)

Phono jack (CD, Tpae1)
(E70-0037-08)

Phono jack (Tape2, Video1, 2)
(E70-0038-08)

Slide switch (Impedance sel)
(S62-0032-08)

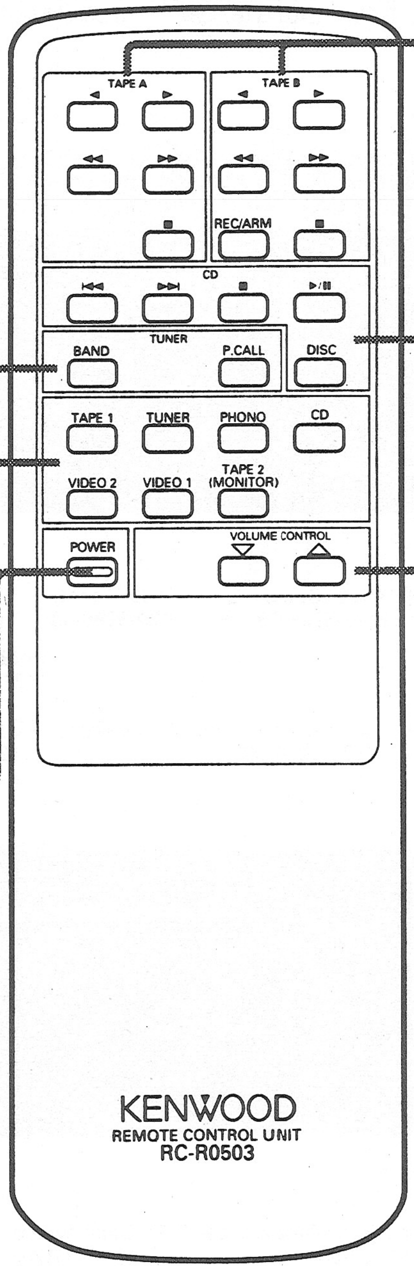
Miniature phone jack (Synchro)
(E11-0188-05)

4 : KR-A4060
5 : KR-A5060

Photo is KR-A5060 (E type).

***Refer to parts list on page 83.**

REMOTE CONTROL OPERATION


TAPE A
TAPE B
◄
►
◄◄
►►
■
REC/ARM
CD
|◄◄
►►|
■
►/II
TUNER
BAND
P.CALL
DISC
TAPE 1
TUNER
PHONO
CD
VIDEO 2
VIDEO 1
TAPE 2 (MONITOR)
POWER
VOLUME CONTROL
▽
△
KENWOOD
REMOTE CONTROL UNIT
RC-R0503

Cassette deck operation keys
These keys are used to operate TAPE A and TAPE B decks.

REC/ARM key
When recording on TAPE B, puts the deck in record-pause mode after leaving a non-recorded blank of 4 seconds.

TUNER operation keys

BAND	Selects the broadcast band.
P.CALL	Recalls preset stations.

CD player operation keys

DISC	This key is used as the disc selector of a multi-CD player. Each press selects a different disc.

INPUT key
Selects the input sources.

TAPE 2 (MONITOR) key
Press to monitor the source being recorded.

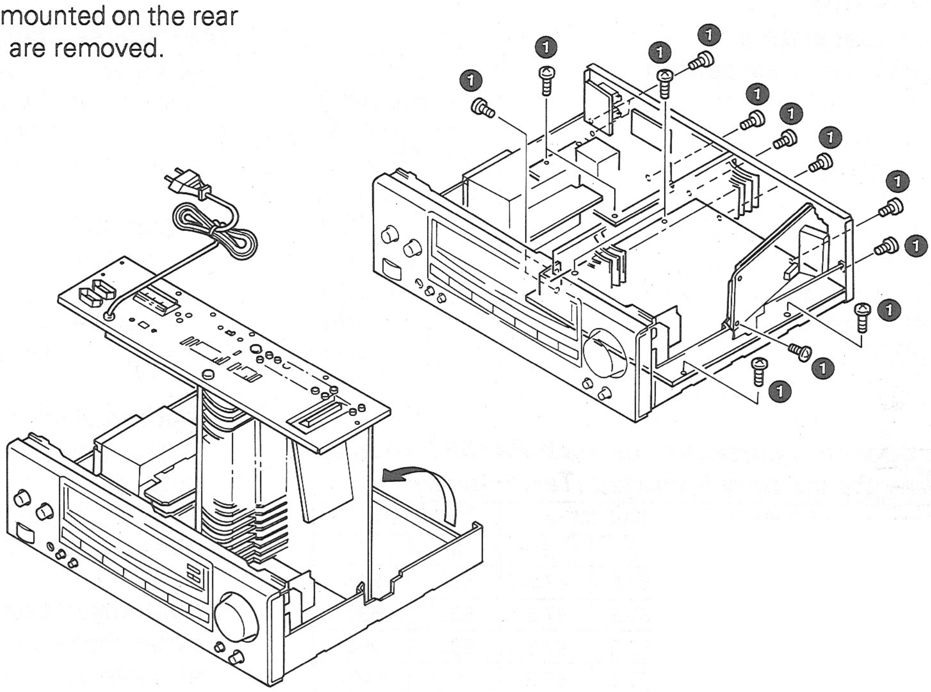
VOLUME keys
Adjust the listening volume. THE VOLUME CONTROL knob of the main unit turns when these keys are operated.

POWER key

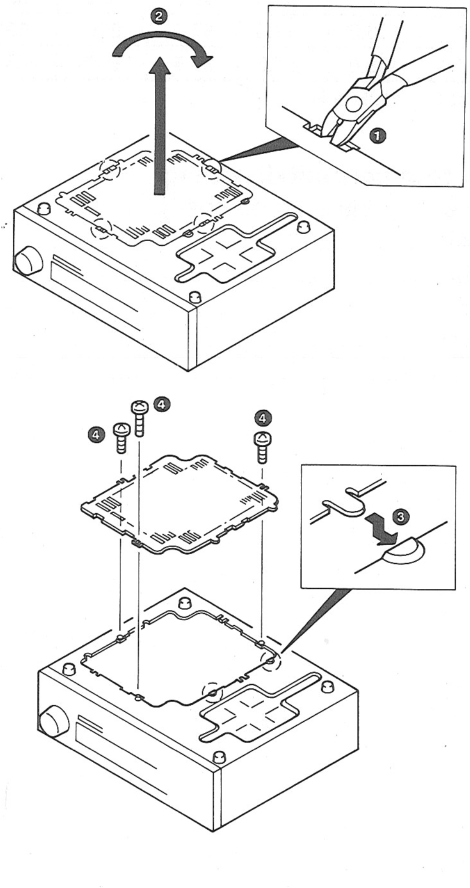
Model: RC-R0503
Infrared ray system

DISASSEMBLY FOR REPAIR

1. Repair can be carried out with the Main (AUDIO) PCB and the power supply PCB mounted on the rear panel when the 17 screws (①) are removed.



2. Cut the 4 places with a pair of nippers (①), and remove the bottom panel from chassis.
3. Move the unit holder from the current position to the open mounting position.
4. Rotate the lid, which was cut off, by 180° degrees (②).
5. Insert the lids in the 2 places of the chassis (③), and mount them with the 3 screws (④).



CIRCUIT DESCRIPTION

1. Setting

1-1. Initial setting

- **Function initial setting**

Last channel memory	FM : 87.5MHz
K type	AM : 530kHz
E type	AM : 531kHz
Tuning mode	Auto
Band	FM1
Input selector	Tuner
VIDEO monitor	VIDEO 1
TAPE 2 monitor	OFF
Muting	OFF
Power	OFF

Frequency memorized for each PRESET channel when the memory is cleated (Test frequency)

Band	FM1 (MHz)		FM2 (MHz)		AM (kHz)	
type	K	E	K	E	K	E
1ch	87.5	87.5	87.5	87.5	530	531
2ch	89.1	89.1	87.5	87.5	630	630
3ch	90.0	90.0	87.5	87.5	990	990
4ch	92.0	92.0	87.5	87.5	1440	1440
5ch	94.0	94.0	87.5	87.5	1610	1602
6ch	98.0	98.0	87.5	87.5	1700*	531
7ch	100.1	100.1	87.5	87.5	530	531
8ch	102.0	102.0	87.5	87.5	530	531
9ch	106.0	106.0	87.5	87.5	530	531
10ch	108.0	108.0	87.5	87.5	530	531

*1700kHz is set for WIDE only.

- **μ-com output port initial setting**

[Any figure in ( ) is a pin number.]

POWER (24)	"L"
$\overline{\text{MUTE 1}}$ (25)	"H"
$\overline{\text{MUTE 2}}$ (26)	"H"
VRDOWN (1)	"L"
VRUP (63)	"L"

The initial setting is performed in a following event

1. When backup memory data is destroyed when reset is applied to the μ-com.
2. When the power cord is plugged in to the AC wall outlet while pressing the TUNER key.

1-2. Test mode setting

- **Method of entering the test mode**

While pressing the CD key, plug the power cord to the AC wall outlet. When the test mode is entered, the FL tube display all lights up.

- **Method of canceling the test mode**

1. Unplug the power cord from the AC wall outlet once.
2. Send the reset signal to the RESET pin or some other means to reset the μ-com.

- **Contents of test mode**

1. When the test mode is entered, the FL tube display all lights up. This all lighting continues unless a effective remote control serial code or the test mode is canceled.
2. The test frequency is stored in memory for each preset channel. (For each frequency to be stored in memory, refer to its associated listing.)
3. The test mode is different from the normal mode in the following operations :

   When the tuner UP or DOWN key is pressed when a mode other than TUNER has been selected, the potentiometer is increased or decreased.

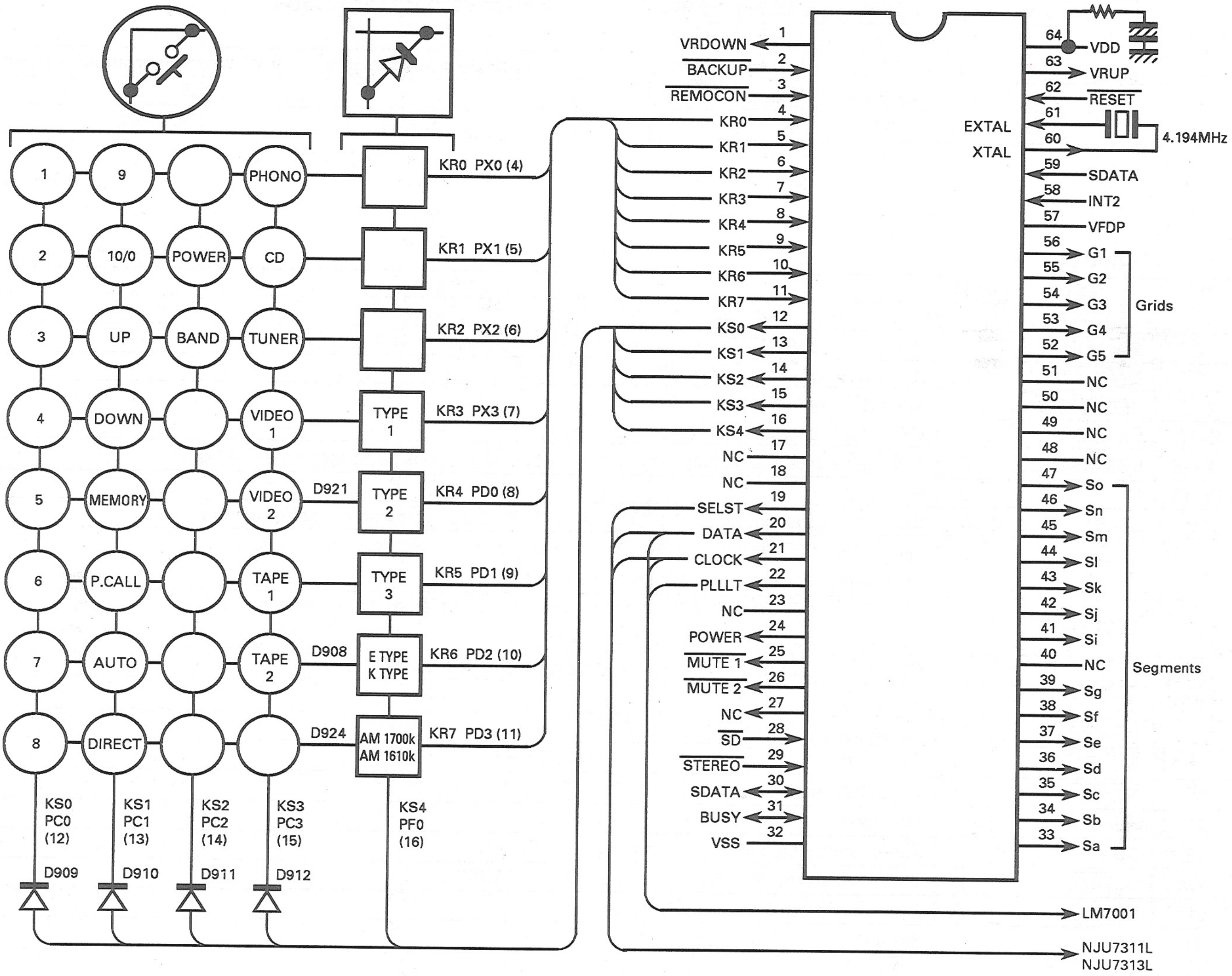
   Once one of the these keys has been pressed, the operation continues even if the key is released.

   It stops automatically if the AUTO or POWER key is pressed or if the AUTO or POWER key is not pressed for 16 seconds.

CIRCUIT DESCRIPTION

2. Receiver μ-com : CXP5016-531S (Front PCB : IC901)

2-1. Key matrix connection diagram


1
9
PHONO
2
10/0
POWER
CD
3
UP
BAND
TUNER
4
DOWN
VIDEO 1
5
MEMORY
VIDEO 2
6
P.CALL
TAPE 1
7
AUTO
TAPE 2
8
DIRECT
D921
D908
D924
TYPE 1
TYPE 2
TYPE 3
E TYPE K TYPE
AM 1700k AM 1610k
KR0 PX0 (4)
KR1 PX1 (5)
KR2 PX2 (6)
KR3 PX3 (7)
KR4 PD0 (8)
KR5 PD1 (9)
KR6 PD2 (10)
KR7 PD3 (11)
KS0 PC0 (12)
KS1 PC1 (13)
KS2 PC2 (14)
KS3 PC3 (15)
KS4 PF0 (16)
D909
D910
D911
D912
VRDOWN 1
BACKUP 2
REMOCON 3
KR0 4
KR1 5
KR2 6
KR3 7
KR4 8
KR5 9
KR6 10
KR7 11
KS0 12
KS1 13
KS2 14
KS3 15
KS4 16
NC 17
NC 18
SELST 19
DATA 20
CLOCK 21
PLLLT 22
NC 23
POWER 24
MUTE 1 25
MUTE 2 26
NC 27
SD 28
STEREO 29
SDATA 30
BUSY 31
VSS 32
64 VDD
63 VRUP
62 RESET
61 EXTAL
60 XTAL
4.194MHz
59 SDATA
58 INT2
57 VFDP
56 G1
55 G2
54 G3
53 G4
52 G5
Grids
51 NC
50 NC
49 NC
48 NC
47 So
46 Sn
45 Sm
44 Sl
43 Sk
42 Sj
41 Si
40 NC
39 Sg
38 Sf
37 Se
36 Sd
35 Sc
34 Sb
33 Sa
Segments
LM7001
NJU7311L
NJU7313L

2-2. Setting of destinations, models and specifications depending upon diode key matrix

The setting of destinations, models and specifications is made according to the initial set diode key matrix. In the following, "1" means with diodes and "0" without diodes.

- **Model set switch (Type 2 : D921)**

Model set switch			MODEL	Function		
Type 1	Type 2	Type 3		TUNER band	VOL.CONT with motor	REMOCON
–	1	0	KR-A4060/A5060	→FM1→FM2→AM	Provided	Provided

EXCEPT E,T

CIRCUIT DESCRIPTION

- **Destination set switch : E/K type (D908 to Q903)**

Destination set switch	Desti-nation	BAND	Reception frequency band	Channel space	Reference frequency
0	K	FM	87.5~108.0MHz	100kHz	50kHz
		AM	530~1610kHz	10kHz	10kHz
		AM	530~1700kHz	10kHz	10kHz
1	E	FM	87.5~108.0MHz	50kHz	50kHz
		AM	531~1602kHz	9kHz	9kHz

- **Specification set switch : AM 1700k/AM 1610k (D924) With destination set switch at "0" : Effective only for K type**

Specification set switch	AM reception frequency band
0	530~1610kHz
1	530~1700kHz

2-3. Pin function

No.	Name	I/O	Function
1	VRDOWN	O	Volume down operation control. ("H" : Down, "L" : Normal state)
2	$\overline{\text{BACKUP}}$	I	Backup (AC outlet OFF) detection. ("H" : Normal state, "L" : AC outlet off)
3	$\overline{\text{REMOCON}}$	I	Remocon signal input. (Active "L")
4~7	KR0~KR3	I	Key return signal input. ("H" : There is input, "L" : There is not input)
8~11	KR4~KR7		
12~16	KS0~KS4	O	Key scan signal output. Normally high is output. Key scan is performed when key is ON.
17, 18	NC	O	Not used.
19	SELST	O	Data latch signal output to NJU7311L/NJU7313L. Data is latched on the rising edge.
20	DATA	O	LM7001 (PLL IC), NJU7311L/NJU7313L (selector IC) control serial data output. Data is latched on the rising edge of the clock.
21	CLOCK		LM7001, NJU7311L/NJU7313L control serial data transfer shift clock output. Data is latched on the rising edge of the clock.
22	PLLLT	O	CE signal output to LM7001. When the signal is high, LM7001 is enable.
23	NC	–	Not used.
24	POWER	O	Power supply circuit relay ON/OFF control. ("H" : ON, "L" : OFF)
25	$\overline{\text{MUTE1}}$	O	TAPE 2 REC OUT mute control. ("H" : MUTE OFF, "L" : MUTE ON)
26	$\overline{\text{MUTE2}}$	O	LINE OUT mute control. ("H" : MUTE OFF, "L" : MUTE ON)
27	NC	O	Not used.
28	$\overline{\text{SD}}$	I	Tuner tuned detection. ("H" : No signal, "L" : Tuned)
29	$\overline{\text{STEREO}}$	I	Tuner FM stereo detection. ("H" : MONO, "L" : STEREO)
30	SDATA	I/O	This pin and serial data pin 59 are shorted.
31	BUSY	I/O	Serial busy signal input/output.
32	Vss	–	GND
33~47	Sa~So	O	Fluorescent display segment drive signal output. (Pin 40 muted)
48~51	–	O	Not used.
52~56	G5~G1	O	Fluorescent display digit drive signal output.
57	VFDP	–	Fluorescent display output driver circuit power supply.
58	INT2	I	Not used. This pin and GND are shorted.
59	SDATA	I	This pin and serial data input pin 30 are shorted.
60	XTAL	O	Clock generation circuit output pin.
61	EXTAL	I	Clock generation circuit input pin.
62	$\overline{\text{RESET}}$	I	Reset signal input.
63	VRUP	O	Volume up operation control. ("H" : UP, "L" : Normal state)
64	VDD	–	+5V power supply.

3. Function description

Features

3-1. AMP

- Seven position selector :
  CD, TUNER, PHONO, TAPE1, TAPE2, VIDEO1, VIDEO2
- Six audio output terminals :
  CD, PHONO, TAPE1, TAPE2, VIDEO1, VIDEO2
- Tree output terminals :
  TAPE1, TAPE2
- LINE STRAIGHT
- Speaker A/B change-over
- TAPE2 monitor

3-2. TUNER

- 20ch random preset
- Tuning control by IF count
- Direct selection
- RDS function (E, T type only)

4. Conditions according to the destination and model

4-1. AMP

MODEL	DIODE SW		Surround function
	5	4	
KR-V7050	0	0	PRO-LOGIC, 3-STEREO, DSP, DSP-LOGIC
KR-V6050 (Except E, T only)	0	1	PRO-LOGIC, 3-STEREO
KR-A4060/A5060 (E, T only)	1	X	No surround

X : Don't care

4-2. TUNER

Destination	DIODE SW				Band	Receiving Remarks	Channel space	IF	RF	Note
	3	2	1	0						
K1	0	0	0	0	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	50kHz	
					AM	530kHz~1610kHz	10kHz	+450kHz	10kHz	
K2	0	0	1	0	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	50kHz	
					AM	530kHz~1700kHz	10kHz	+450kHz	10kHz	
E	0	1	0	0	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	50kHz	
					AM	531kHz~1602kHz	9kHz	+450kHz	9kHz	
E	1	1	0	0	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	50kHz	With RDS
					AM	531kHz~1602kHz	9kHz	+450kHz	9kHz	

4-3. Diode matrix : Diode switch No.

	Pin No.	55	56	57	58	59	60
Pin No.	Pin name	KR5	KR4	KR3	KR2	KR1	KR0
61	KS7	Channel space	AM 1610/1700	RDS Yes/No	DSP.DOL/DOL only	Surround Yes/No	(X)
Diode switch No.		2	1	3	4	5	0
Diode Ref. No.		D911	–	D910	–	D909	–

- Diode SW 0→
- Diode SW 1→ AM band range/Except E, T type only
  0 : AM NARROW
  1 : AM WIDE
- Diode SW 2→ Channel base
  (Products bound for M : Change-over with switch)
  0 : FM 100kHz/step, AM 10kHz/step
  1 : FM 50kHz/step, AM 9kHz/step
- Diode SW 3→With/Without RDS/E, T type only
  0 : Without RDS
  1 : With RDS
- Diode SW 4→Surround mode
  0 : Dolby function & DSP function
  1 : Dolby function only
- Diode SW 5→With/Without surround
  0 : With surround
  1 : Without surround

5. Initial state

① POWER OFF

② AMP system

- Audio selector .... TUNER
- Video system selector .... VIDEO 1
- Speaker A .... ON
- Speaker B .... OFF
- TAPE 2 monitor .... OFF
- LINE STARIGHT .... OFF

③ TUNER system

- Band .... FM
- Frequency .... Lower limit of FM (87.5MHz)
- TUNING mode .... AUTO TUNING (AUTO STEREO)
- P.CH indication .... – –ch

④ Test frequency

	K1 type	**K2 type**	**E type**
01ch	FM 98.00MHz	FM 98.00MHz	FM 98.00MHz
02ch	FM108.00MHz	FM108.00MHz	FM108.00MHz
03ch	AM 630 kHz	AM 630 kHz	AM 630 kHz
04ch	AM 990 kHz	AM 990 kHz	AM 990 kHz
05ch	AM 1440 kHz	AM 1440 kHz	AM 1440 kHz
06ch	AM 1610 kHz	AM 1700 kHz	AM 1602 kHz
07ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
08ch	FM 98.50MHz	FM 98.50MHz	FM 98.50MHz
09ch	AM 530 kHz	AM 530 kHz	AM 531 kHz
10ch	FM 89.10MHz	FM 89.10MHz	FM 89.10MHz
11ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
12ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
13ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
14ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
15ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
16ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
17ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
18ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
19ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
20ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz

Initial setting Insert the AC power cord plug in the electrical outlet while pushing the "POWER" key.

CIRCUIT DESCRIPTION

6. Main Unit Test Mode

Setting method

Turn the AC power ON while pushing the "TUNING DOWN" key.

Cancellation method

Turn the AC power OFF.

Contents

① Start of the main unit test mode

The operation gets in the test mode through a main unit key, when the AC power is turned ON while pushing the "TUNING DOWN" key.

Three operations are carried out in this case.

- Automatic power ON
- All fluorescent character display tubes and LED light up.
- Initialization of all states except POWER ON/OFF.

The "All indications lit up" states is cancelled by pushing any key of the main unit.

The states changed during the test mode are initialized when the main unit test mode is cancelled (AC power OFF).

② Automatic motor VR UP/DOWN (AMP)

The operation (16 sec. UP→16 sec. DOWN→STOP) of the motor is carried out when the "TAPE 2" key is operated. Therefore, "TAPE 2 (MONITOR)" can not be changed-over during the main unit test mode.

③ Mute signal output (AMP)

No control of selector MUTE (MUTE1) is carried out.

④ Test mode operation of 0~9, +10 (TUNER)

a) When the +10 key is not operated, the channels 1~9 (keys 1~9), as well as the channel 10 (key 0), can be called.

b) When the +10 key is operated once, the channels 11~19 (keys 1~9), as well as the channel 20 (key 0), can be called.

c) When the +10 key is operated once again, the operation returns to the case "a) When the +10 key is not operated".

⑤ Processing of keys available only in the remote controller

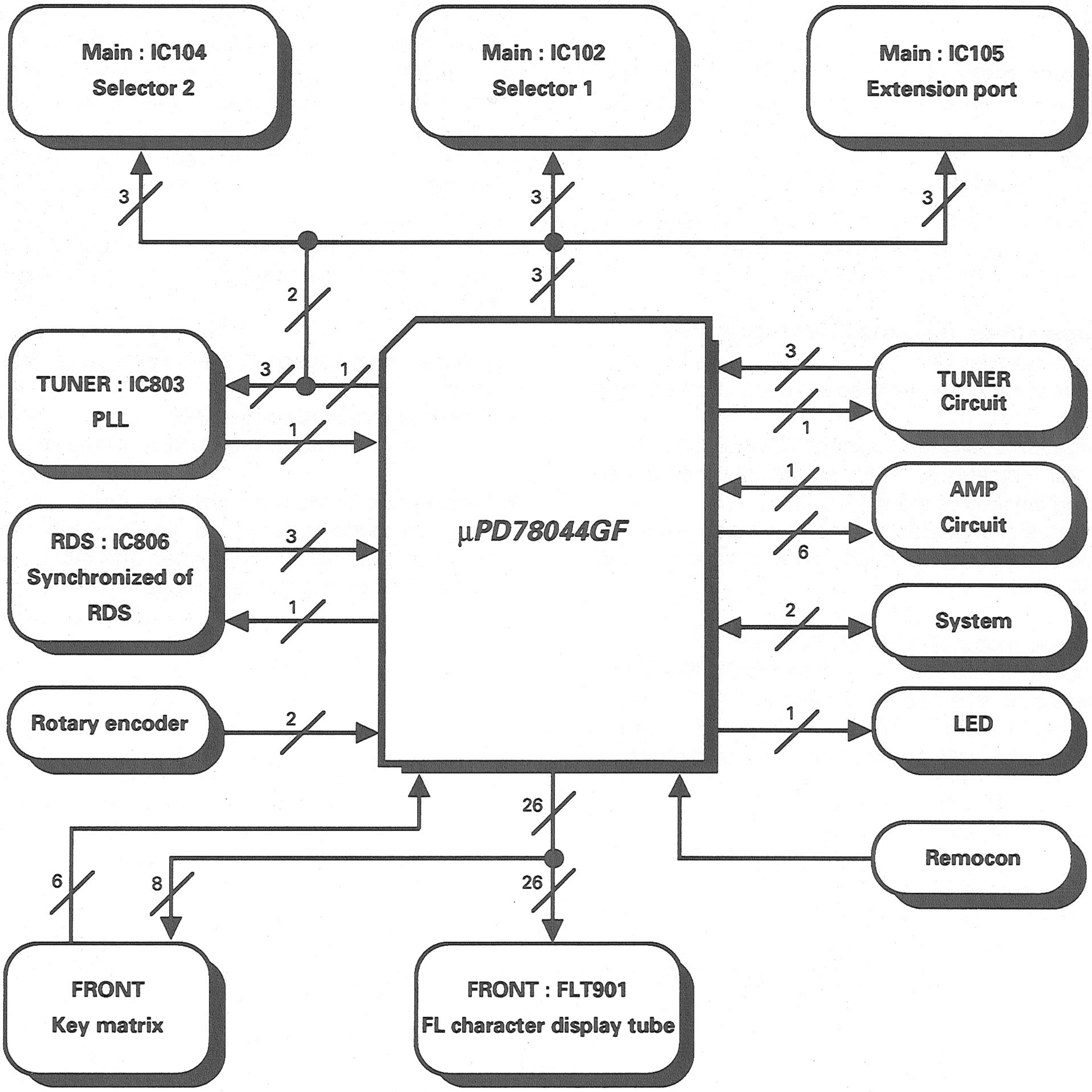
- Processing related to the AMP : None
- Processing related to the TUNER : None

⑥ Cancellation of the main unit test mode

The test mode is cancelled, and the operation returns to the initial state when the AC power is turned OFF during the test mode.

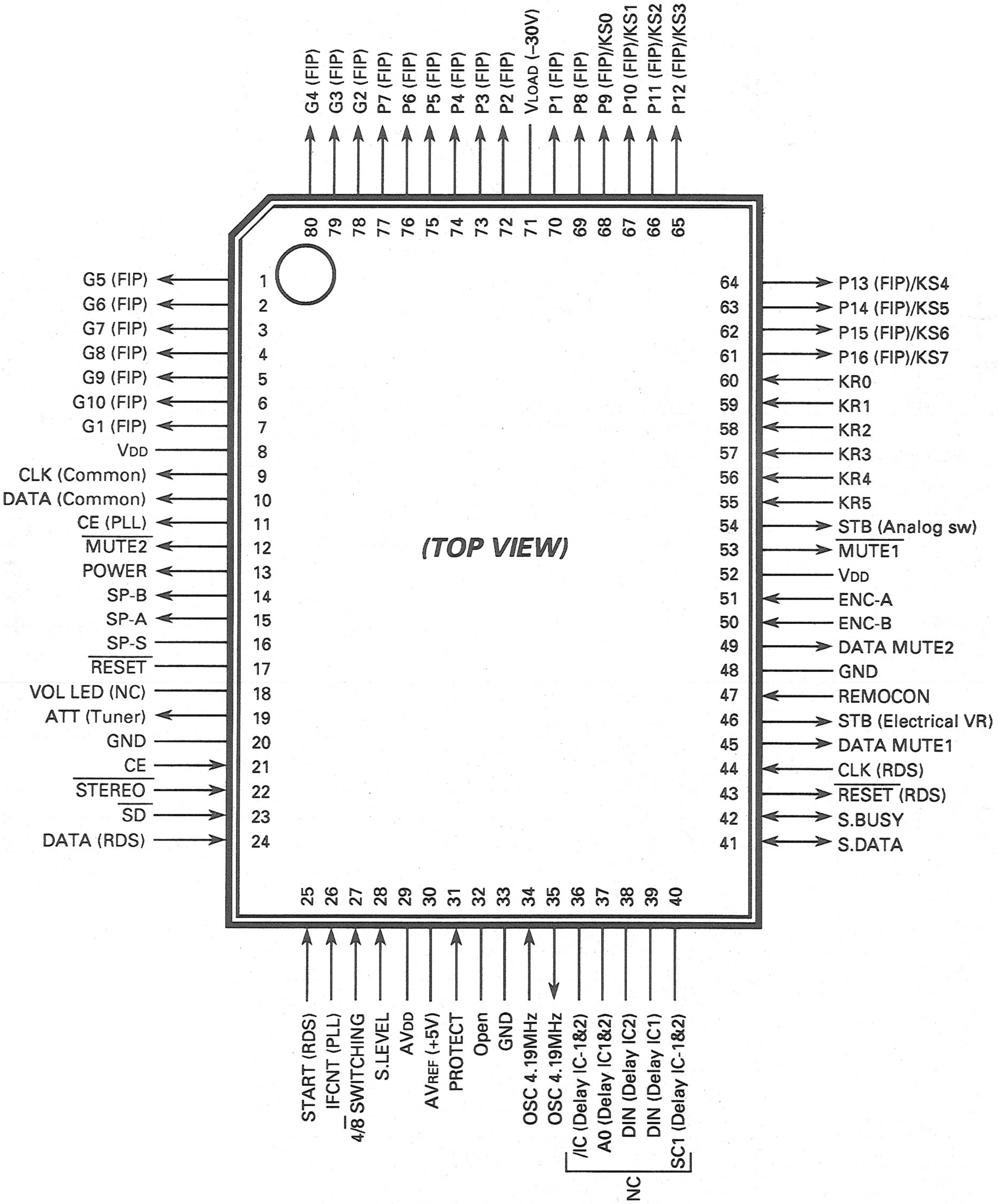
7. μ-com : μPD78044GF-021 (Front PCB : IC901)

7-1. μ-com periphery block diagram


Main : IC104
Selector 2
Main : IC102
Selector 1
Main : IC105
Extension port
3
3
3
3
2
TUNER : IC803
PLL
3
1
1
RDS : IC806
Synchronized of
RDS
3
1
Rotary encoder
2
μPD78044GF
3
TUNER
Circuit
1
1
AMP
Circuit
6
2
System
1
LED
Remocon
26
26
6
8
FRONT
Key matrix
FRONT : FLT901
FL character display tube

CIRCUIT DESCRIPTION

7-2. Pin connection


(TOP VIEW)
1 G5 (FIP)
2 G6 (FIP)
3 G7 (FIP)
4 G8 (FIP)
5 G9 (FIP)
6 G10 (FIP)
7 G1 (FIP)
8 VDD
9 CLK (Common)
10 DATA (Common)
11 CE (PLL)
12 MUTE2
13 POWER
14 SP-B
15 SP-A
16 SP-S
17 RESET
18 VOL LED (NC)
19 ATT (Tuner)
20 GND
21 CE
22 STEREO
23 SD
24 DATA (RDS)
25 START (RDS)
26 IFCNT (PLL)
27 4/8 SWITCHING
28 S.LEVEL
29 AVDD
30 AVREF (+5V)
31 PROTECT
32 Open
33 GND
34 OSC 4.19MHz
35 OSC 4.19MHz
36 /IC (Delay IC-1&2)
37 A0 (Delay IC1&2)
38 DIN (Delay IC2)
39 DIN (Delay IC1)
40 SC1 (Delay IC-1&2)
NC
41 S.DATA
42 S.BUSY
43 RESET (RDS)
44 CLK (RDS)
45 DATA MUTE1
46 STB (Electrical VR)
47 REMOCON
48 GND
49 DATA MUTE2
50 ENC-B
51 ENC-A
52 VDD
53 MUTE1
54 STB (Analog sw)
55 KR5
56 KR4
57 KR3
58 KR2
59 KR1
60 KR0
61 P16 (FIP)/KS7
62 P15 (FIP)/KS6
63 P14 (FIP)/KS5
64 P13 (FIP)/KS4
65 P12 (FIP)/KS3
66 P11 (FIP)/KS2
67 P10 (FIP)/KS1
68 P9 (FIP)/KS0
69 P8 (FIP)
70 P1 (FIP)
71 VLOAD (–30V)
72 P2 (FIP)
73 P3 (FIP)
74 P4 (FIP)
75 P5 (FIP)
76 P6 (FIP)
77 P7 (FIP)
78 G2 (FIP)
79 G3 (FIP)
80 G4 (FIP)

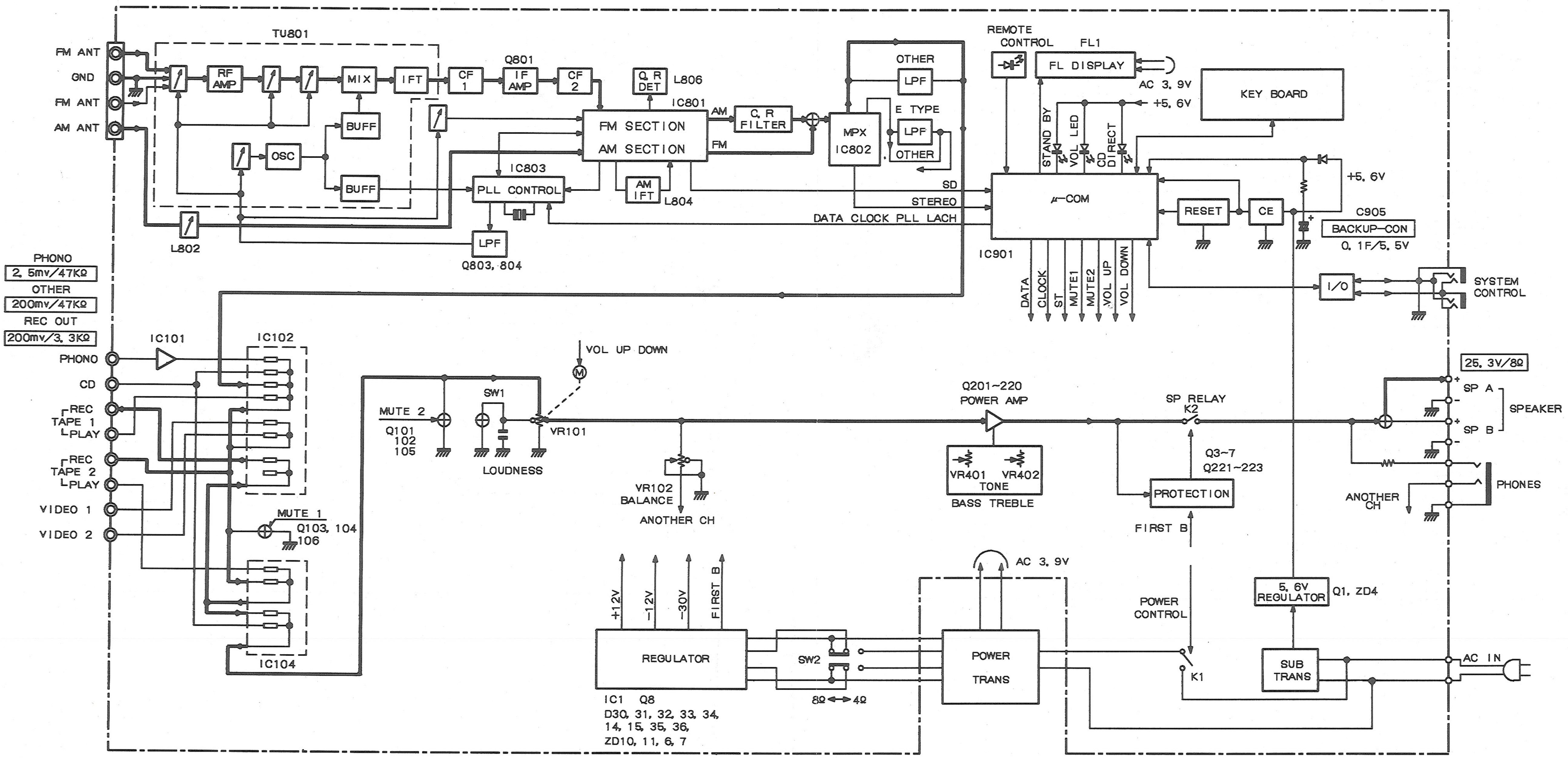
E,T

7-3. Pin function

No.	Name	I/O	Function
1~6, 7	G5~G10, G1	O	FL grid 5~10, and 1.
8	VDD	–	Power supply.
9	CLK (Common)	O	Clock for control IC. (Analog sw/PLL IC/Electronic VOL)
10	DATA (Common)	O	Data for control IC. (Analog sw/PLL IC/Electronic VOL)
11	CE (PLL)	O	PLL CE.
12	$\overline{\text{MUTE2}}$	O	Amplifier mute control. ("H" : Mute OFF, "L" : Mute ON)
13	POWER	O	Power relay control. ("H" : Power ON, "L" : Power OFF)
14	SP-B	O	Speaker B relay control. ("H" : SP-B ON, "L" : SP-B OFF)
15	SP-A	O	Speaker A relay control. ("H" : SP-A ON, "L" : SP-A OFF)
16	SP-S	–	Not used (open).
17	$\overline{\text{RESET}}$	I	µ-com reset.
18	VOL LED	–	Not used (open).
19	ATT (Tuner)	O	Attenuator control ("H" : ATT ON, "L" : ATT OFF)
20	GND	–	A/D power supply.
21	CE	I	µ-com CE.
22	$\overline{\text{STEREO}}$	I	Stereo signal detection. ("H" : Monaural, "L" : Stereo)
23	$\overline{\text{SD}}$	I	Tuning signal detection. ("H" : Not tuned, "L" : Tuned)
24	DATA (RDS)	I	RDS data.
25	START (RDS)	I	RDS start bit.
26	IFCNT (PLL)	I	IF CNT data (PLL DO).
27	4/$\overline{8}$ SWITCHING	I	Speaker impedance switching. ("H" : 4Ω, "L" : 8Ω)
28	S.LEVEL	I	Signal level (A/D).
29	AVDD	–	A/D power supply.
30	AVREF	–	A/D reference voltage (+5V).
31	PROTECT	I	Protection detection. ("H" : Protection, "L" : Normal)
32	NC	–	Open.
33	VSS	–	GND
34	X1	I	4.19MHz oscillator.
35	X2	O	4.19MHz oscillator.
36	/IC (DELAY IC-1 & 2)	–	Not used.
37	A0 (DELAY IC-1 & 2)	–	Not used.
38	DIN (DELAY IC-1)	–	Not used.
39	DIN (DELAY IC-2)	–	Not used.
40	SC1 (DELAY IC-1 & 2)	–	Not used.
41	S.DATA	I/O	8-bit system data.
42	S. BUSY	I/O	8-bit system busy.
43	RESET (RDS)	O	RDS reset.
44	CLK (RDS)	I	RDS clock.
45	DT MUTE1	O	Data mute 1. ("H" : ON, "L" : OFF)
46	STB (Electical VOL)	–	Not used.
47	REMOCON	I	Remote controller input.
48	GND	–	
49	DT MUTE2	–	Not used.
50, 51	ENC-B, ENC-A	I	Encoder input. (50 pin : Encoder B, 51 pin : Encoder A)
52	VDD	–	Power supply.
53	$\overline{\text{MUTE1}}$	O	Selector MUTE control. ("H" : MUTE OFF, "L" : MUTE ON)
54	STB (Analog sw)	O	Analog sw STB.
55~60	KR5~KR0	I	Key return 5~0. (Pin 56 : Not used)
61~68	P16/KS7~P9/KS0	O	FL segment 16~9 / Key scan 7~0.
69, 70	P8, P1	O	FL segment. (69 pin : Segment 8, 70 pin : Segment 1)
71	–30V (VLOAD)	–	FL drive power supply.
72~77	P2~P7	O	FL segment 2~7.
78~80	G2~G4	O	FL grid 2~4.

KR-A4060 KR-A4060

BLOCK DIAGRAM



FM ANT
GND
FM ANT
AM ANT
TU801
RF AMP
MIX
IFT
CF 1
Q801
IF AMP
CF 2
Q.R DET
L806
IC801
BUFF
OSC
BUFF
FM SECTION
AM SECTION
AM
FM
Q.R FILTER
MPX
IC802
OTHER
LPF
E TYPE
LPF
OTHER
IC803
PLL CONTROL
AM IFT
L804
L802
LPF
Q803, 804
SD
STEREO
DATA CLOCK PLL LACH
REMOTE CONTROL
FL1
FL DISPLAY
AC 3.9V
+5.6V
KEY BOARD
STAND BY
VOL LED
CD DIRECT
μ-COM
IC901
RESET
CE
+5.6V
C905
BACKUP-CON
0.1F/5.5V
DATA
CLOCK
ST
MUTE1
MUTE2
VOL UP
VOL DOWN
I/O
SYSTEM CONTROL
PHONO
2.5mv/47KΩ
OTHER
200mv/47KΩ
REC OUT
200mv/3.3KΩ
PHONO
CD
REC
TAPE 1
PLAY
REC
TAPE 2
PLAY
VIDEO 1
VIDEO 2
IC101
IC102
MUTE 1
Q103, 104
106
IC104
MUTE 2
Q101
102
105
SW1
LOUDNESS
VOL UP DOWN
M
VR101
VR102
BALANCE
ANOTHER CH
Q201~220
POWER AMP
VR401
VR402
TONE
BASS TREBLE
SP RELAY
K2
Q3~7
Q221~223
PROTECTION
FIRST B
25.3V/8Ω
SP A
SP B
SPEAKER
PHONES
ANOTHER CH
+12V
-12V
-30V
FIRST B
REGULATOR
IC1 Q8
D30, 31, 32, 33, 34,
14, 15, 35, 36,
ZD10, 11, 6, 7
SW2
8Ω⟷4Ω
AC 3.9V
POWER TRANS
POWER CONTROL
K1
5.6V REGULATOR
Q1, ZD4
SUB TRANS
AC IN

EXCEPT E,T

ADJUSTMENT

AM section : If alignment point is "–", confirm the value. If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		**SELECTOR : FM**					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(ANT. input)	Connect a DC voltmeter between TP803 and TP804. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(ANT. input)	Connect a Frequency counter between TP805 and TP806. (TUNER UNIT)	AUTO 98.0MHz	L802 (TUNER UNIT)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(ANT. input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
4	TUNING LEVEL	(A) 98.0MHz 0 dev. 18dBμ(ANT. input)	(B)	AUTO or MONO 98.0MHz	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	
AM SECTION		**SELECTOR : AM**					
(1)	TUNING LEVEL	(D) 1000 (999) kHz 26dBμ(ANT. input)	(B)	–	VR804 (TUNER UNIT)	Adjust VR804 and stop at the point where FLT901 (TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	–	Connect a DC voltmeter across CP1 (L), CP2 (R) (MAIN UNIT)	Volume : 0	VR201 (L) VR202 (R) (AUDIO UNIT)	10mV	(d)

EXCEPT E,T

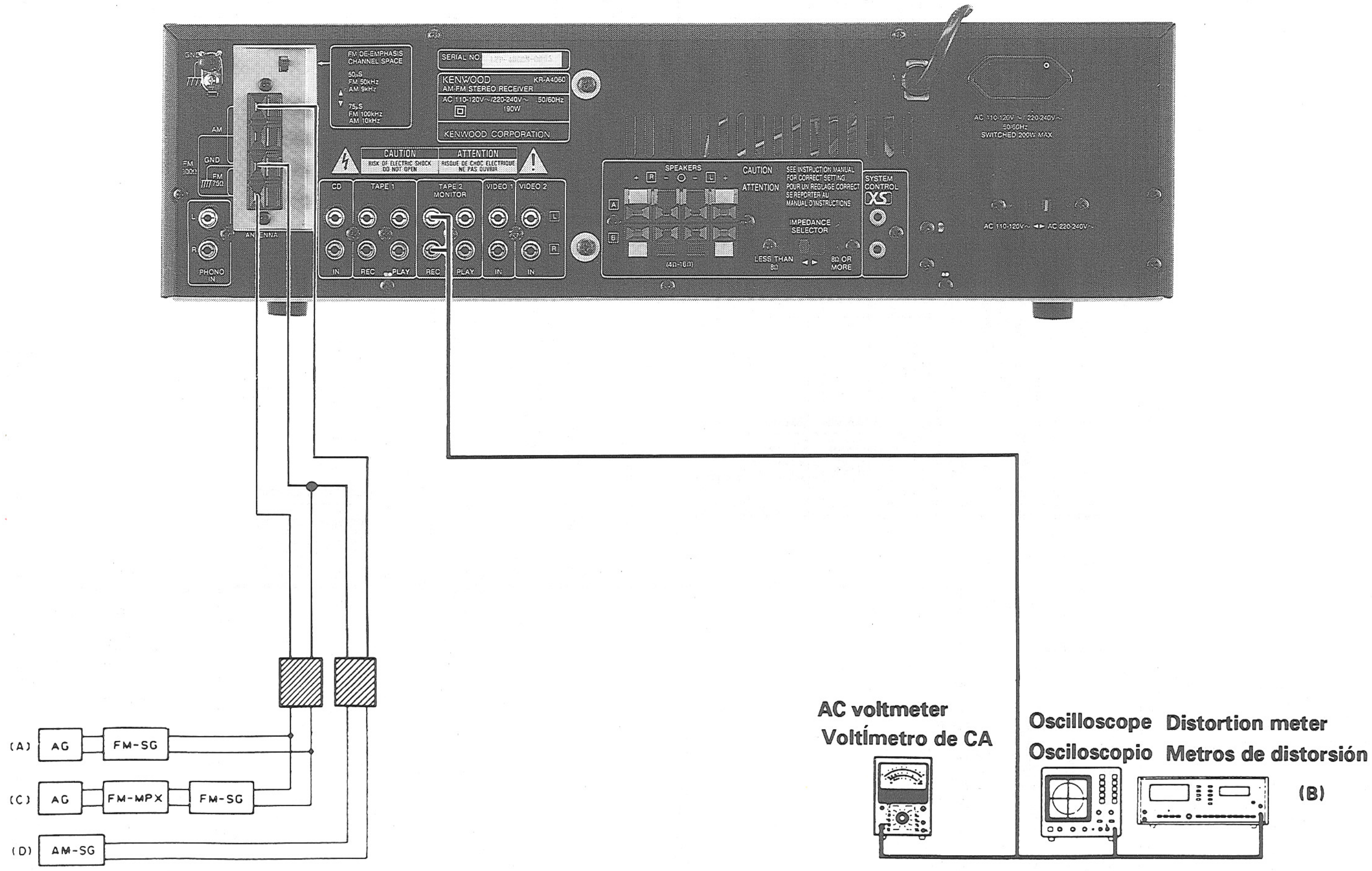
AJUSTES

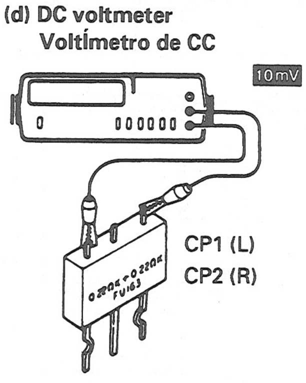
Sección de AM : Si el punto de alineación es "–", confirme el valor. Si no, reemplace el paquete de entrada.

Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM		**SELECTOR ; FM**					
1	DISCRIMINADOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(Entrada de antena)	Conecte un voltímetro de CC entre TP803 y TP804. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(Entrada de antena)	Conecte un Frecuencímetro entre TP805 y TP806. (UNIDAD DEL SINTONIZADOR)	AUTO 98.0MHz	L802 (UNIDAD DEL SINTONIZADOR)	19.00kHz	(b)
3	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(Entrada de antena)	(B)	98.0MHz	IFT (W02-)	Distorsión mínima. (L o R)	
4	NIVEL DE SINTONÍA	(A) 98.0MHz 0 dev. 18dBμ(Entrada de antena)	(B)	AUTO o MONO 98.0MHz	VR801 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AM		**SELECTOR ; AM**					
(1)	NIVEL DE SINTONÍA	(D) 1000 (999) kHz 26dBμ(Entrada de antena)	(B)	–	VR804 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AUDIO							
<1>	CORRIENTE EN REPOSO	–	Conecte un voltímetro de CC entre CP1 (L) y CP2 (R) (UNIDAD PRINCIPAL)	Volumen : 0	VR201 (L) VR202 (R) (UNIDAD AUDIO)	10mV	(d)

ADJUSTMENT/AJUSTES

SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA

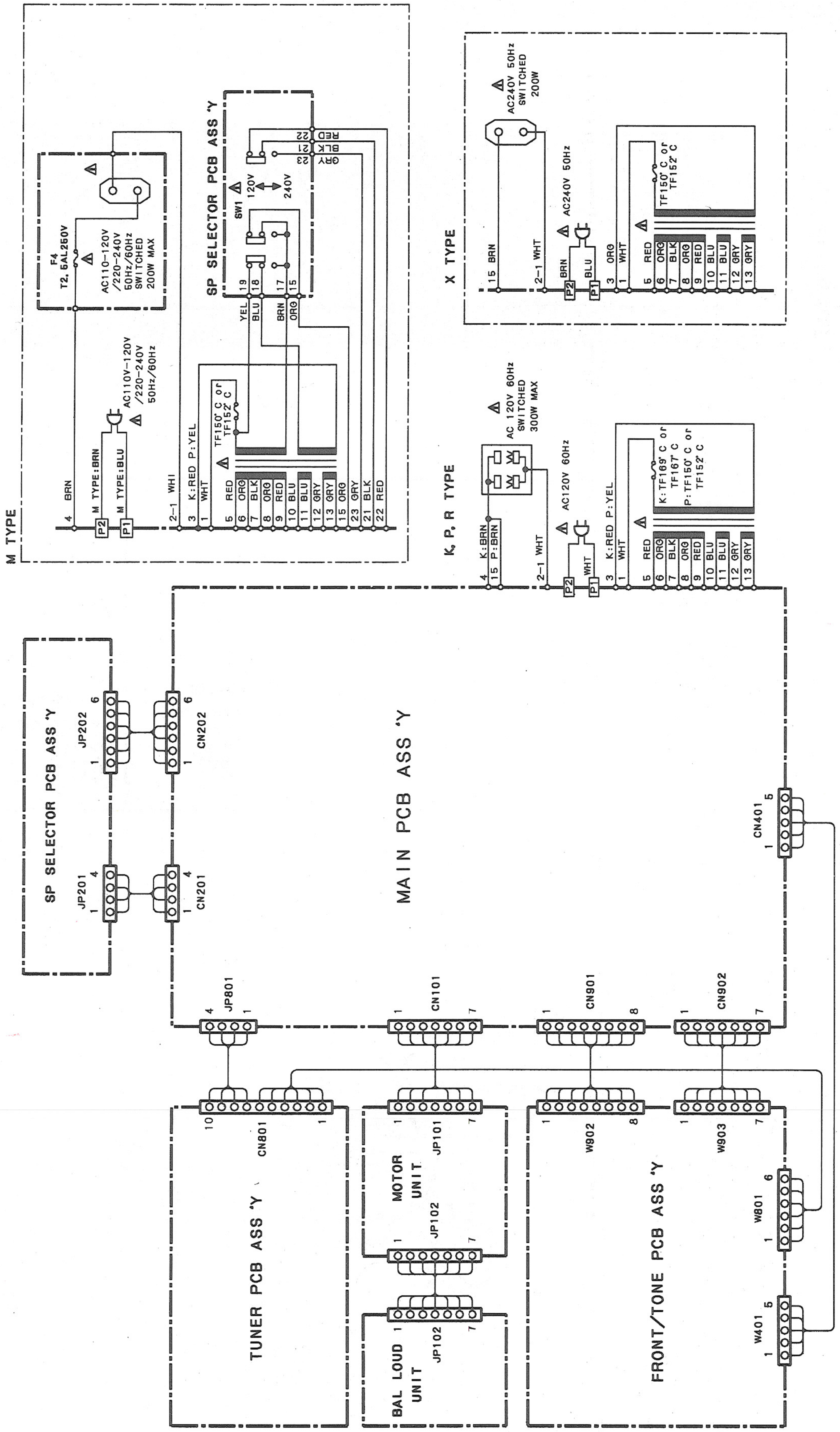

ANTENNA
PHONO IN
CD
TAPE 1
TAPE 2 MONITOR
VIDEO 1
VIDEO 2
SPEAKERS
SYSTEM CONTROL
IMPEDANCE SELECTOR
(A) AG FM-SG
(C) AG FM-MPX FM-SG
(D) AM-SG
AC voltmeter
Voltímetro de CA
Oscilloscope
Osciloscopio
Distortion meter
Metros de distorsión
(B)


(d) DC voltmeter
Voltímetro de CC
10mV
CP1 (L)
CP2 (R)

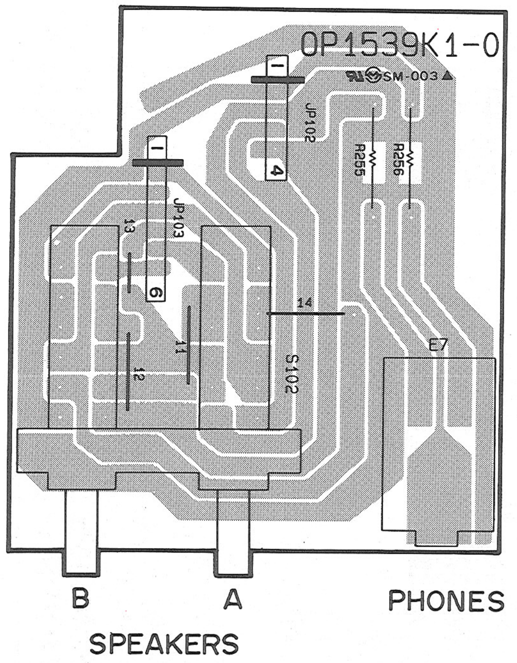
EXCEPT E,T

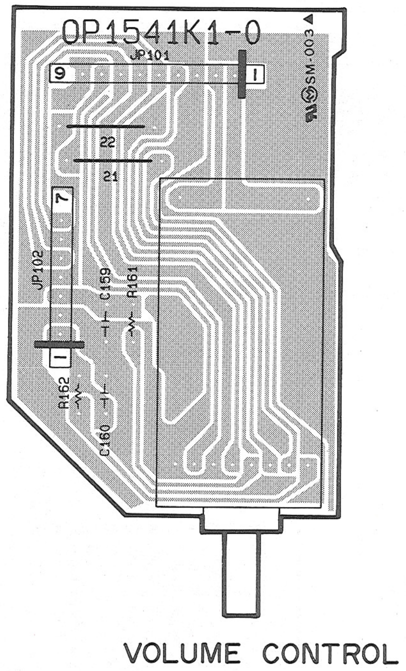
KR-A4060

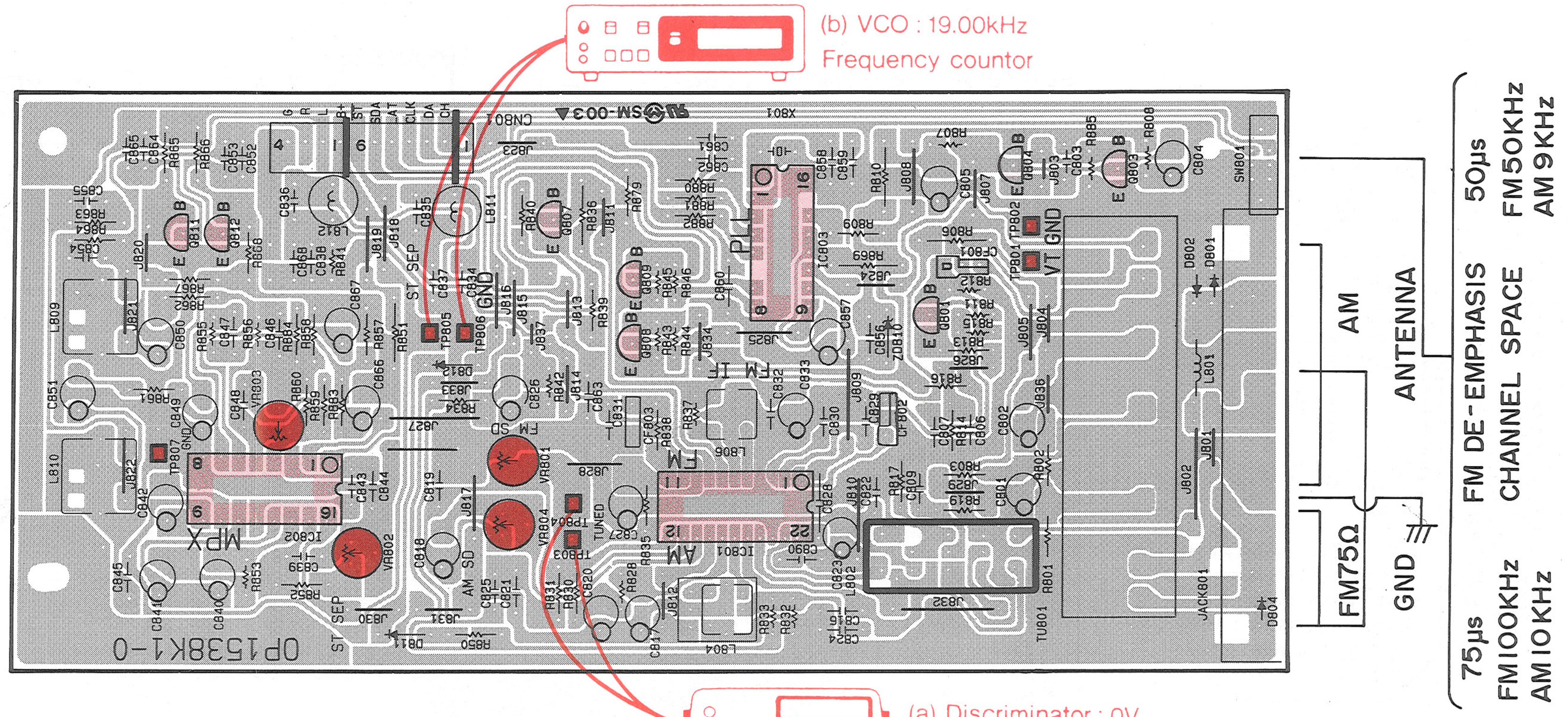
WIRING DIAGRAM

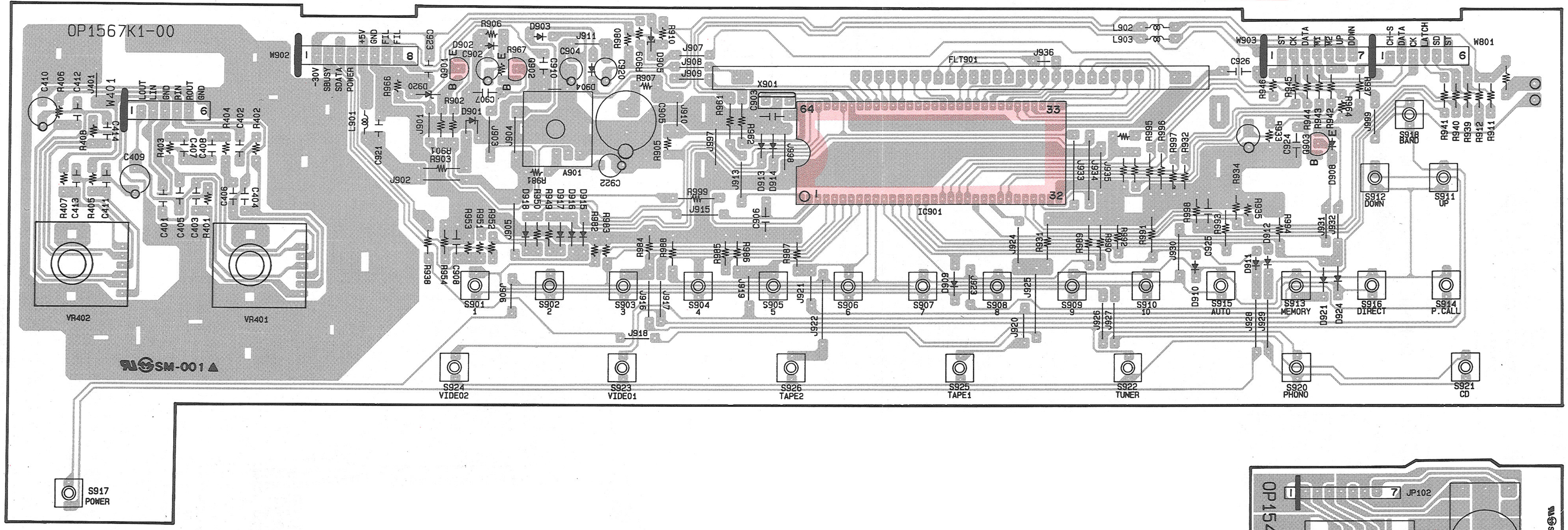

M TYPE
4 BRN
M TYPE:BRN
M TYPE:BLU
AC110V-120V /220-240V 50Hz/60Hz
F4 T2.5AL250V
AC110-120V /220-240V 50Hz/60Hz SWITCHED 200W MAX
2-1 WHI
3 K:RED P:YEL
1 WHT
TF150°C or TF152°C
5 RED
6 ORG
7 BLK
8 ORG
9 RED
10 BLU
11 BLU
12 GRY
13 GRY
15 ORG
23 GRY
21 BLK
22 RED
SP SELECTOR PCB ASS'Y
SW1 120V 240V
19 YEL
18 BLU
17 BRN
15 ORG
22 RED
21 BLK
23 GRY
K, P, R TYPE
4 K:BRN
15 P:BRN
AC 120V 60Hz SWITCHED 300W MAX
AC120V 60Hz
2-1 WHT
WHT
3 K:RED P:YEL
1 WHT
K:TF169°C or TF167°C
P:TF150°C or TF152°C
X TYPE
AC240V 50Hz SWITCHED 200W
15 BRN
2-1 WHT
AC240V 50Hz
BRN
BLU
3 ORG
1 WHT
TF150°C or TF152°C
P1
P2
SP SELECTOR PCB ASS'Y
JP202
JP201
CN202
CN201
MAIN PCB ASS'Y
CN401
JP801
CN101
CN901
CN902
CN801
TUNER PCB ASS'Y
JP101
MOTOR UNIT
JP102
BAL LOUD UNIT
W902
W903
FRONT/TONE PCB ASS'Y
W801
W401

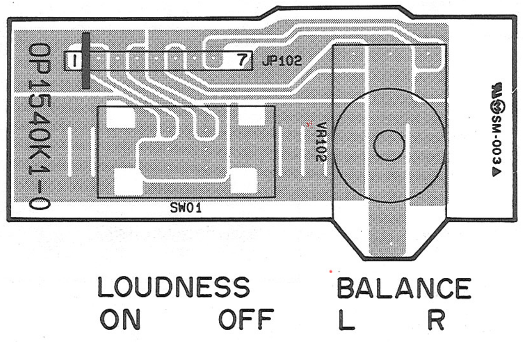
PC BOARD (COMPONENT SIDE VIEW) : KR-A4060


OP1539K1-0
SM-003
JP102
JP103
S102
E7
B
A
PHONES
SPEAKERS


OP1541K1-0
SM-003
JP101
JP102
VOLUME CONTROL


(b) VCO : 19.00kHz
Frequency countor
OP1538K1-0
SM-003
CN801
MPX
IC802
IC801
PLL
FM
AM
ST SEP
FM SD
AM SD
TUNED
VT GND
TP801
TP805
TP806
TP807
VR801
VR802
VR803
VR804
TU801
JACK801
SW801
(a) Discriminator : 0V
DC Voltmeter
AM
ANTENNA
GND
FM75Ω
50µs
FM 50KHz
AM 9KHz
FM DE-EMPHASIS
CHANNEL SPACE
75µs
FM 100KHz
AM 10KHz


OP1567K1-00
SM-001
W401
W902
W903
W801
FLT901
IC901
X901
VR402
VR401
S901 1
S902 2
S903 3
S904 4
S905 5
S906 6
S907 7
S908 8
S909 9
S910 10
S915 AUTO
S913 MEMORY
S916 DIRECT
S914 P.CALL
S918 BAND
S912 DOWN
S911 UP
S924 VIDEO2
S923 VIDEO1
S926 TAPE2
S925 TAPE1
S922 TUNER
S920 PHONO
S921 CD
S917 POWER


OP1540K1-0
SM-003
JP102
VR102
SW01
LOUDNESS
ON
OFF
BALANCE
L
R

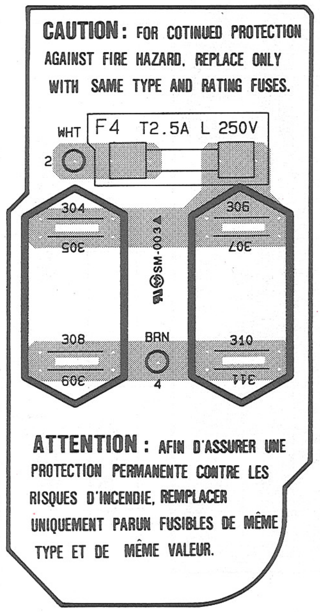
FRONT

Refer to the schematic diagram for the values of resistors and capacitors.

EXCEPT E,T

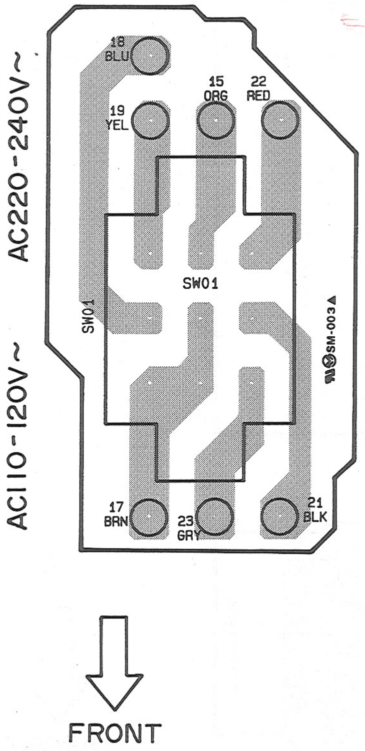
PC BOARD (COMPONENT SIDE VIEW) : KR-A4060

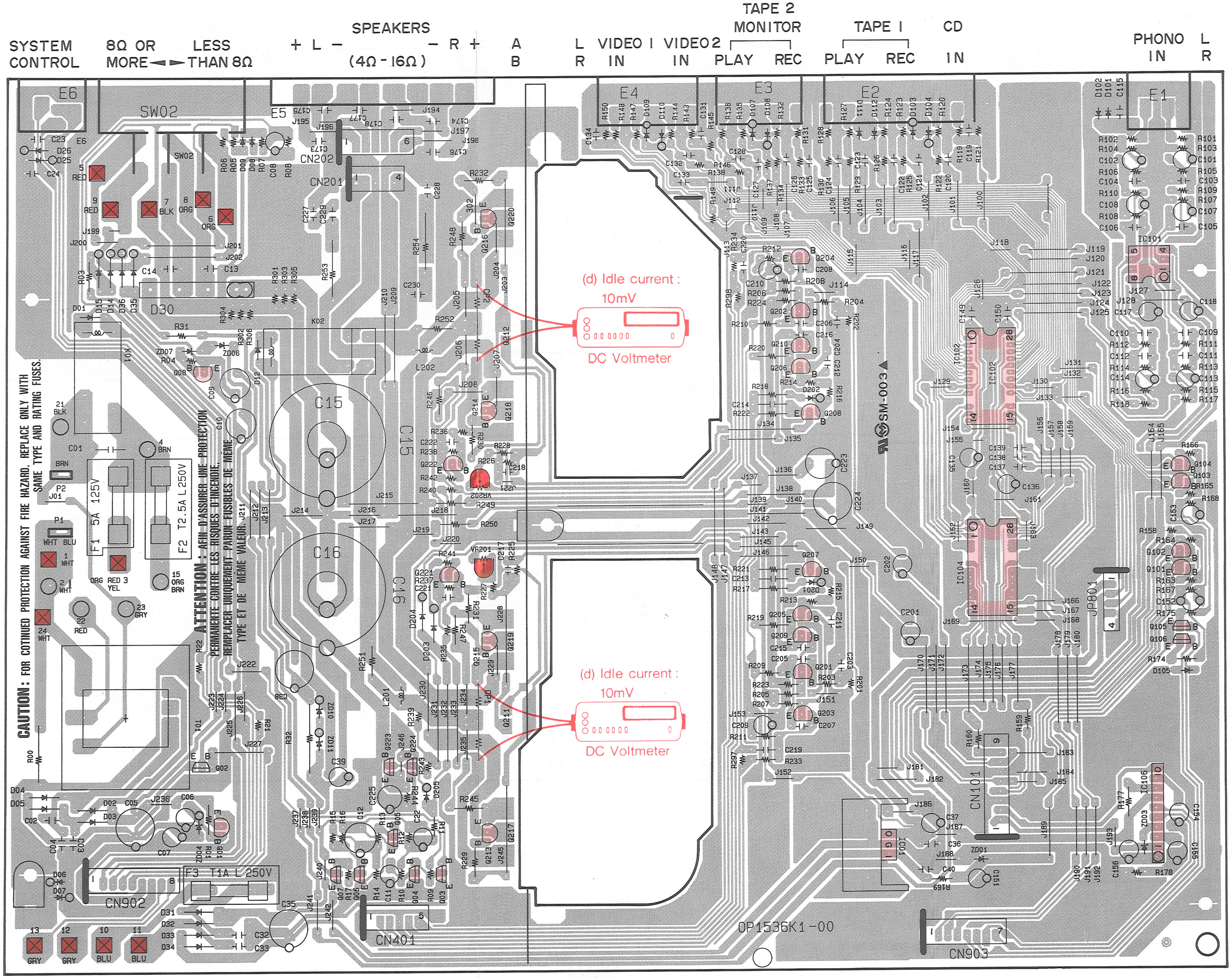
AC110-120V~/220-240V~
50/60Hz
SWITCHED 200W MAX.


WHT
F4 T2.5A L 250V
304
305
306
307
308
309
310
311
BRN
SM-003A

CAUTION: FOR COTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATING FUSES.

ATTENTION: AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLES DE MÊME TYPE ET DE MÊME VALEUR.

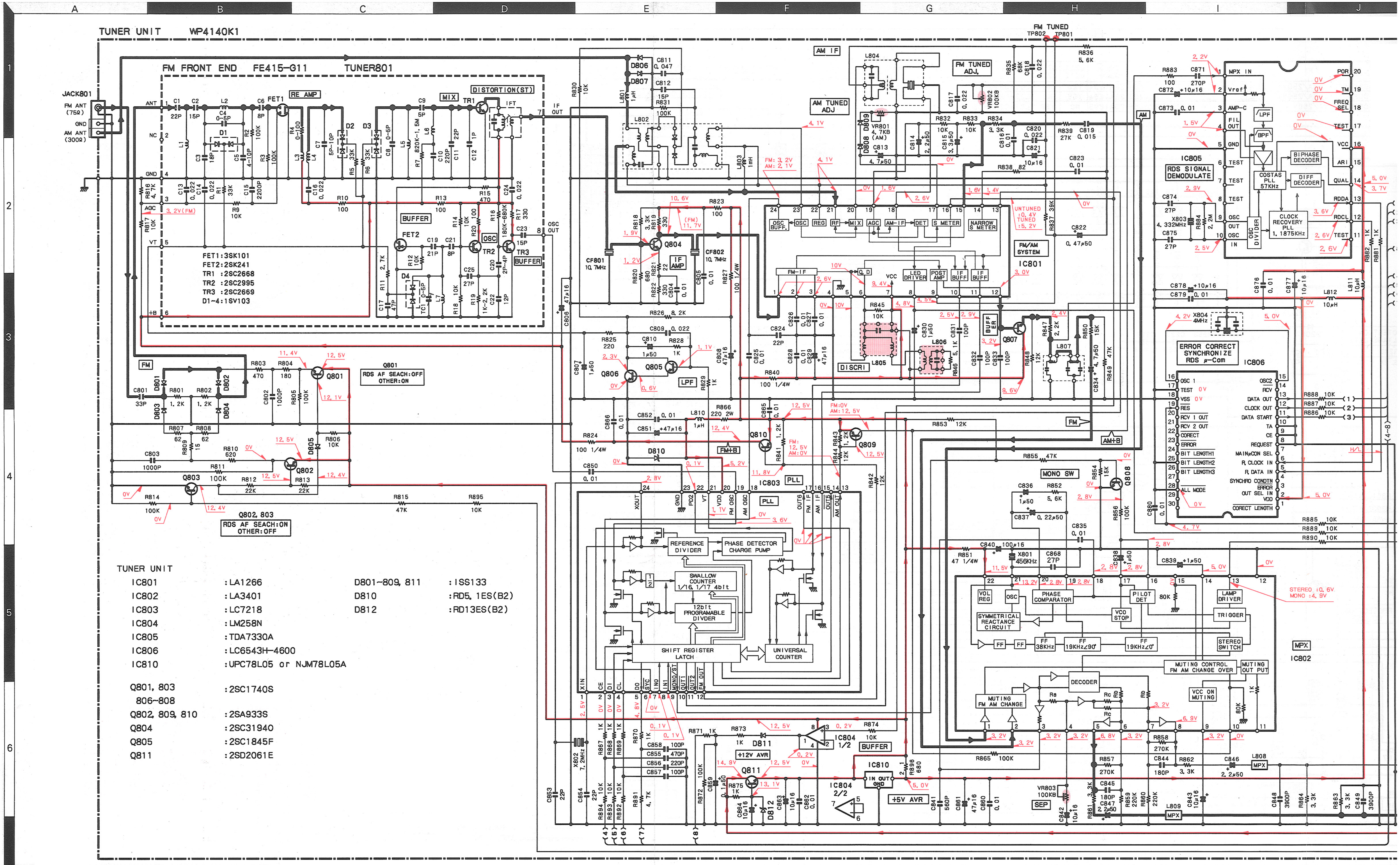

AC220-240V~
AC110-120V~
SW01
18 BLU
15 ORG
22 RED
19 YEL
17 BRN
23 GRY
21 BLK
SM-003A
FRONT


SYSTEM CONTROL
8Ω OR MORE
LESS THAN 8Ω
SPEAKERS
+ L −
− R +
(4Ω - 16Ω)
A
B
L
R
VIDEO 1 IN
VIDEO 2 IN
TAPE 2 MONITOR
PLAY
REC
TAPE 1
PLAY
REC
CD IN
PHONO IN
L
R
E6
SW02
E5
CN202
CN201
E4
E3
E2
E1
D30
C15
C16
(d) Idle current : 10mV
DC Voltmeter
(d) Idle current : 10mV
DC Voltmeter
F1 5A 125V
F2 T2.5A L 250V
F3 T1A L 250V
CAUTION: FOR COTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATING FUSES.
ATTENTION: AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLES DE MÊME TYPE ET DE MÊME VALEUR.
CN902
CN401
CN903
CN101
IC101
IC102
IC104
IC106
JP801
SM-003
OP1536K1-00
13 GRY
12 GRY
10 BLU
11 BLU

EXCEPT E,T

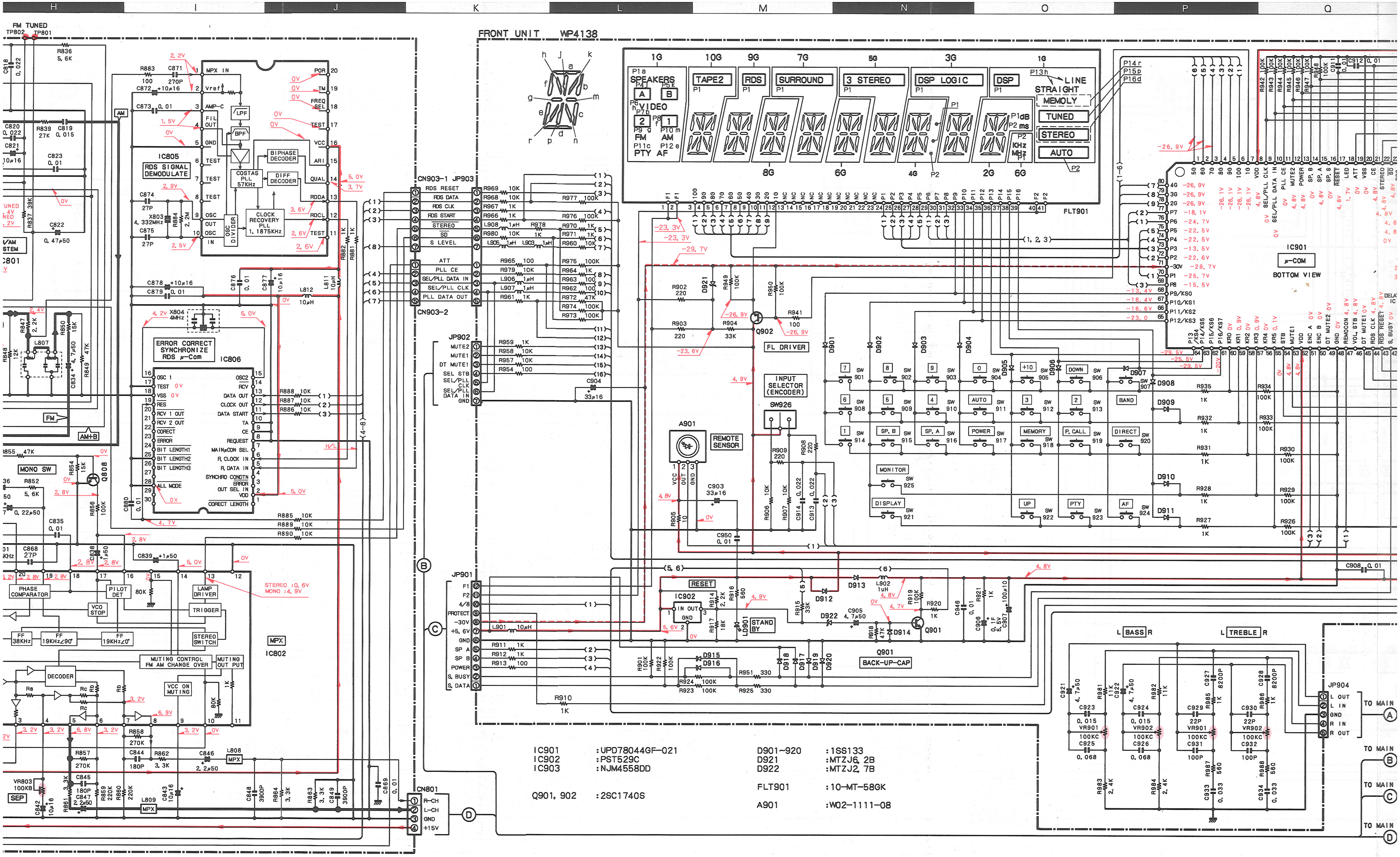
Refer to the schematic diagram for the values of resistors and capacitors.

TUNER UNIT WP4140K1


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
JACK801
FM ANT (75Ω)
GND
AM ANT (300Ω)
FM FRONT END FE415-G11
TUNER801
RF AMP
MIX
DISTORTION(ST)
BUFFER
OSC
IF OUT
OSC OUT
FET1:3SK101
FET2:2SK241
TR1 :2SC2668
TR2 :2SC2995
TR3 :2SC2669
D1~4:1SV103
FM TUNED
TP802
TP801
AM IF
AM TUNED ADJ
FM TUNED ADJ.
IC801
FM/AM SYSTEM
IC802
MPX
IC803
PLL
IC804
BUFFER
IC805
RDS SIGNAL DEMODULATE
IC806
ERROR CORRECT SYNCHRONIZE RDS μ-Com
IC810
+12V AVR
+5V AVR
Q801
RDS AF SEACH:OFF OTHER:ON
Q802, 803
RDS AF SEACH:ON OTHER:OFF
Q804
Q805
Q806
Q807
Q808
Q809
Q810
Q811
IF AMP
LPF
DISCRI
MONO SW
SEP
REFERENCE DIVIDER
PHASE DETECTOR CHARGE PUMP
SWALLOW COUNTER 1/16, 1/17 4bit
12bit PROGRAMABLE DIVIDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
PHASE COMPARATOR
SYMMETRICAL REACTANCE CIRCUIT
PILOT DET
VCO STOP
LAMP DRIVER
TRIGGER
STEREO SWITCH
DECODER
MUTING CONTROL FM AM CHANGE OVER
MUTING OUT PUT
VCC ON MUTING
MUTING FM AM CHANGE
BIPHASE DECODER
DIFF DECODER
COSTAS PLL 57KHz
CLOCK RECOVERY PLL 1.1875KHz
OSC DIVIDER
STEREO :0.6V MONO :4.9V
UNTUNED :0.4V TUNED :5.2V
FM:3.2V AM:2.1V

TUNER UNIT

IC801	:LA1266	D801~809, 811	:ISS133
IC802	:LA3401	D810	:RD5.1ES(B2)
IC803	:LC7218	D812	:RD13ES(B2)
IC804	:LM258N		
IC805	:TDA7330A		
IC806	:LC6543H-4600		
IC810	:UPC78L05 or NJM78L05A		
Q801, 803 806~808	:2SC1740S		
Q802, 809, 810	:2SA933S		
Q804	:2SC31940		
Q805	:2SC1845F		
Q811	:2SD2061E		


H
I
J
K
L
M
N
O
P
Q
FM TUNED
TP802
TP801
FRONT UNIT WP4138
IC805
RDS SIGNAL DEMODULATE
MPX IN
Vref
AMP-C
FIL OUT
GND
TEST
OSC
OUT
IN
POR
TM
FREQ SEL
VCC
ARI
QUAL
RDDA
RDCL
LPF
BPF
BIPHASE DECODER
COSTAS PLL 57KHz
DIFF DECODER
CLOCK RECOVERY PLL 1.1875KHz
OSC DIVIDER
X803 4.332MHz
X804 4MHz
IC806
ERROR CORRECT SYNCHRONIZE RDS μ-Com
OSC 1
OSC2
RCV
VSS
DATA OUT
CLOCK OUT
DATA START
RES
RCV 1 OUT
RCV 2 OUT
CORECT
ERROR
BIT LENGTH1
BIT LENGTH2
BIT LENGTH3
ALL MODE
TA
CE
REQUEST
MAIN/μCON SEL
R CLOCK IN
R DATA IN
SYNCHRO CONDTN
ERROR OUT SEL IN
VDD
CORECT LENGTH
CN903-1 JP903
RDS RESET
RDS DATA
RDS CLK
RDS START
STEREO
SD
S LEVEL
PLL CE
SEL/PLL DATA IN
SEL/PLL CLK
PLL DATA OUT
CN903-2
JP902
MUTE2
MUTE1
DT MUTE1
SEL STB
SEL/PLL CLK
SEL/PLL DATA IN
GND
JP901
F1
F2
4/8
PROTECT
-30V
+5.6V
GND
SP A
SP B
POWER
S.BUSY
S.DATA
CN801
R-CH
L-CH
GND
+15V
IC802
MPX
PHASE COMPARATOR
PILOT DET
LAMP DRIVER
TRIGGER
VCO STOP
STEREO SWITCH
FF 38KHz
FF 19KHz∠90°
FF 19KHz∠0°
MUTING CONTROL FM AM CHANGE OVER
MUTING OUT PUT
VCC ON MUTING
DECODER
STEREO :0.6V
MONO :4.9V
MONO SW
SEP
FM
AM+B
AM
FLT901
1G 10G 9G 7G 5G 3G 1G
SPEAKERS A B
VIDEO
FM AM
PTY AF
TAPE2
RDS
SURROUND
3 STEREO
DSP LOGIC
DSP
LINE STRAIGHT
MEMOLY
TUNED
STEREO
AUTO
dB ms KHz MHz
8G 6G 4G 2G 6G
IC901
μ-COM
BOTTOM VIEW
Q902
FL DRIVER
INPUT SELECTOR (ENCODER)
SW926
A901
REMOTE SENSOR
VCC OUT GND
SW901 7
SW902 8
SW903 9
SW904 0
SW905 +10
SW906 DOWN
SW907 ↑
SW908 6
SW909 5
SW910 4
SW911 AUTO
SW912 3
SW913 2
BAND
SW914 1
SW915 SP. B
SW916 SP. A
SW917 POWER
SW918 MEMORY
SW919 P. CALL
SW920 DIRECT
SW925 MONITOR
SW921 DISPLAY
SW922 UP
SW923 PTY
SW924 AF
RESET
IC902
IN OUT GND
STAND BY
Q901
BACK-UP-CAP
L BASS R
L TREBLE R
VR901
VR902
JP904
L OUT
L IN
GND
R IN
R OUT
TO MAIN A
TO MAIN B
TO MAIN C
TO MAIN D

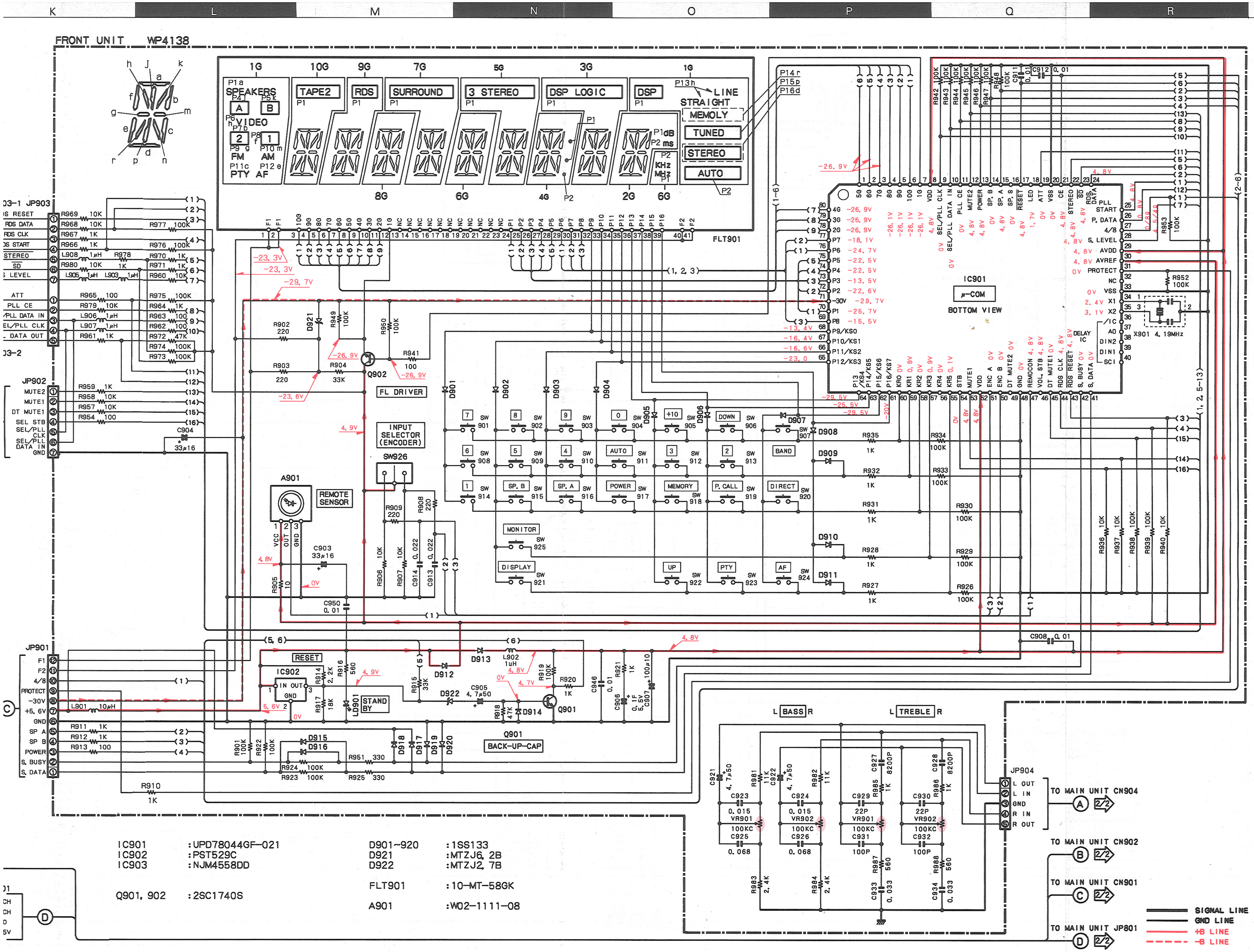
IC901 :UPD78044GF-021
IC902 :PST529C
IC903 :NJM4558DD

Q901, 902 :2SC1740S

D901~920 :1SS133
D921 :MTZJ6. 2B
D922 :MTZJ2. 7B

FLT901 :10-MT-58GK

A901 :W02-1111-08



K
L
M
N
O
P
Q
R
FRONT UNIT WP4138
FLT901
IC901
μ-COM
BOTTOM VIEW
FL DRIVER
INPUT SELECTOR (ENCODER)
SW926
A901
REMOTE SENSOR
IC902
RESET
STAND BY
BACK-UP-CAP
Q901
Q902
X901 4.19MHz
JP901
JP902
JP903
JP904
SPEAKERS
TAPE2
RDS
SURROUND
3 STEREO
DSP LOGIC
DSP
LINE STRAIGHT
MEMOLY
TUNED
STEREO
AUTO
VIDEO
FM
AM
PTY
AF
BASS
TREBLE
VR901
VR902
TO MAIN UNIT CN904
TO MAIN UNIT CN902
TO MAIN UNIT CN901
TO MAIN UNIT JP801
L OUT
L IN
GND
R IN
R OUT

IC901 :UPD78044GF-021
IC902 :PST529C
IC903 :NJM4558DD

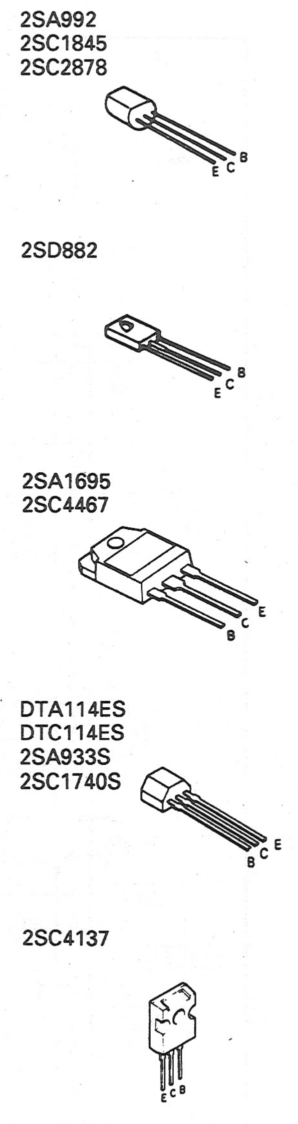
Q901, 902 :2SC1740S

D901~920 :1SS133
D921 :MTZJ6, 2B
D922 :MTZJ2, 7B

FLT901 :10-MT-58GK

A901 :W02-1111-08

SIGNAL LINE
GND LINE
+B LINE
-B LINE



S
T
2SA992
2SC1845
2SC2878
2SD882
2SA1695
2SC4467
DTA114ES
DTC114ES
2SA933S
2SC1740S
2SC4137
E C B

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

1/2 (E, T)

Y05-2880-10

KR-A4060/A5060

KENWOOD

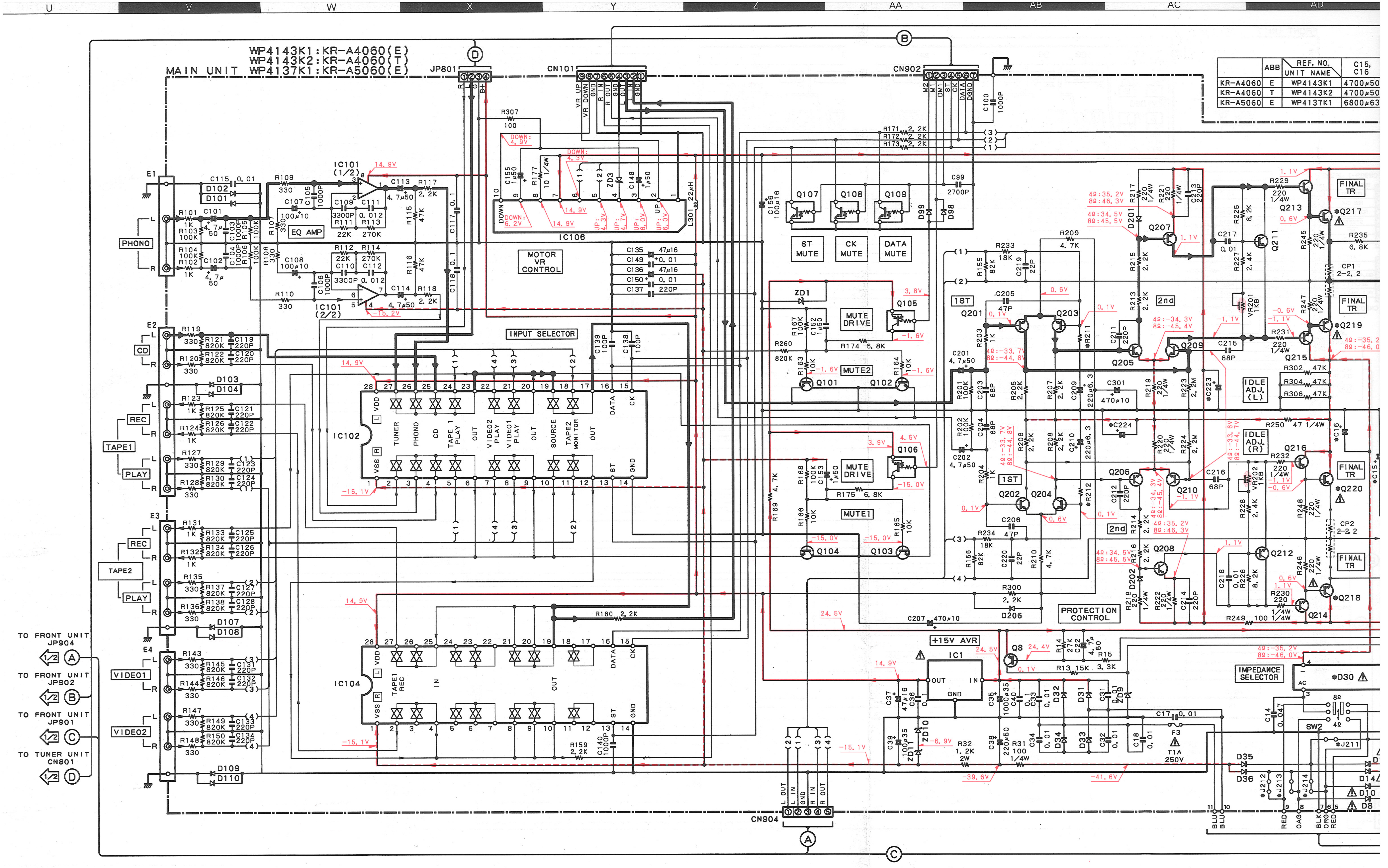

U
V
W
X
Y
Z
AA
AB
AC
AD
WP4143K1:KR-A4060(E)
WP4143K2:KR-A4060(T)
WP4137K1:KR-A5060(E)
MAIN UNIT
JP801
CN101
CN902
CN904
VR UP
VR DOWN
R IN
R OUT
GND
L OUT
L IN
M2
M1
DM1
ST
CK
DATA
DGND
E1
E2
E3
E4
PHONO
CD
REC
TAPE1
PLAY
TAPE2
VIDEO1
VIDEO2
IC101 (1/2)
IC101 (2/2)
EQ AMP
IC102
IC104
IC106
MOTOR VR CONTROL
INPUT SELECTOR
TUNER
PHONO
CD
TAPE 1 PLAY
OUT
VIDEO2 PLAY
VIDEO1 PLAY
SOURCE
TAPE2 MONITOR
TAPE1 REC
IN
VDD
VSS
DATA
CK
ST
GND
ST MUTE
CK MUTE
DATA MUTE
MUTE DRIVE
MUTE2
MUTE1
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q109
ZD1
ZD3
D99
D98
1ST
2nd
Q201
Q202
Q203
Q204
Q205
Q206
Q207
Q208
Q209
Q210
Q211
Q212
Q213
Q214
Q215
Q216
✽Q217
✽Q218
✽Q219
✽Q220
FINAL TR
IDLE ADJ.(L)
IDLE ADJ.(R)
VR201 1KB
VR202 1KB
CP1 2-2, 2
CP2 2-2, 2
PROTECTION CONTROL
+15V AVR
IC1
OUT
IN
GND
Q8
IMPEDANCE SELECTOR
✽D30
SW2
✽J211
F3 T1A 250V
D35
D36
D10
D8
14, 9V
-15, 2V
-15, 1V
24, 5V
24, 4V
-39, 6V
-41, 6V
-6, 9V
DOWN: 4, 9V
DOWN: 6, 2V
UP: 4, 3V
UP: 4, 7V
UP: 6, 0V
4Ω:35, 2V
8Ω:46, 3V
4Ω:34, 5V
8Ω:45, 5V
4Ω:-34, 3V
8Ω:-45, 4V
4Ω:-33, 7V
8Ω:-44, 8V
4Ω:-35, 2V
8Ω:-46, 0V
TO FRONT UNIT JP904
TO FRONT UNIT JP902
TO FRONT UNIT JP901
TO TUNER UNIT CN801
1/2
A
B
C
D
BLU
RED
ORG
BLK

	ABB	REF. NO. UNIT NAME	C15, C16
KR-A4060	E	WP4143K1	4700µ50
KR-A4060	T	WP4143K2	4700µ50
KR-A5060	E	WP4137K1	6800µ63

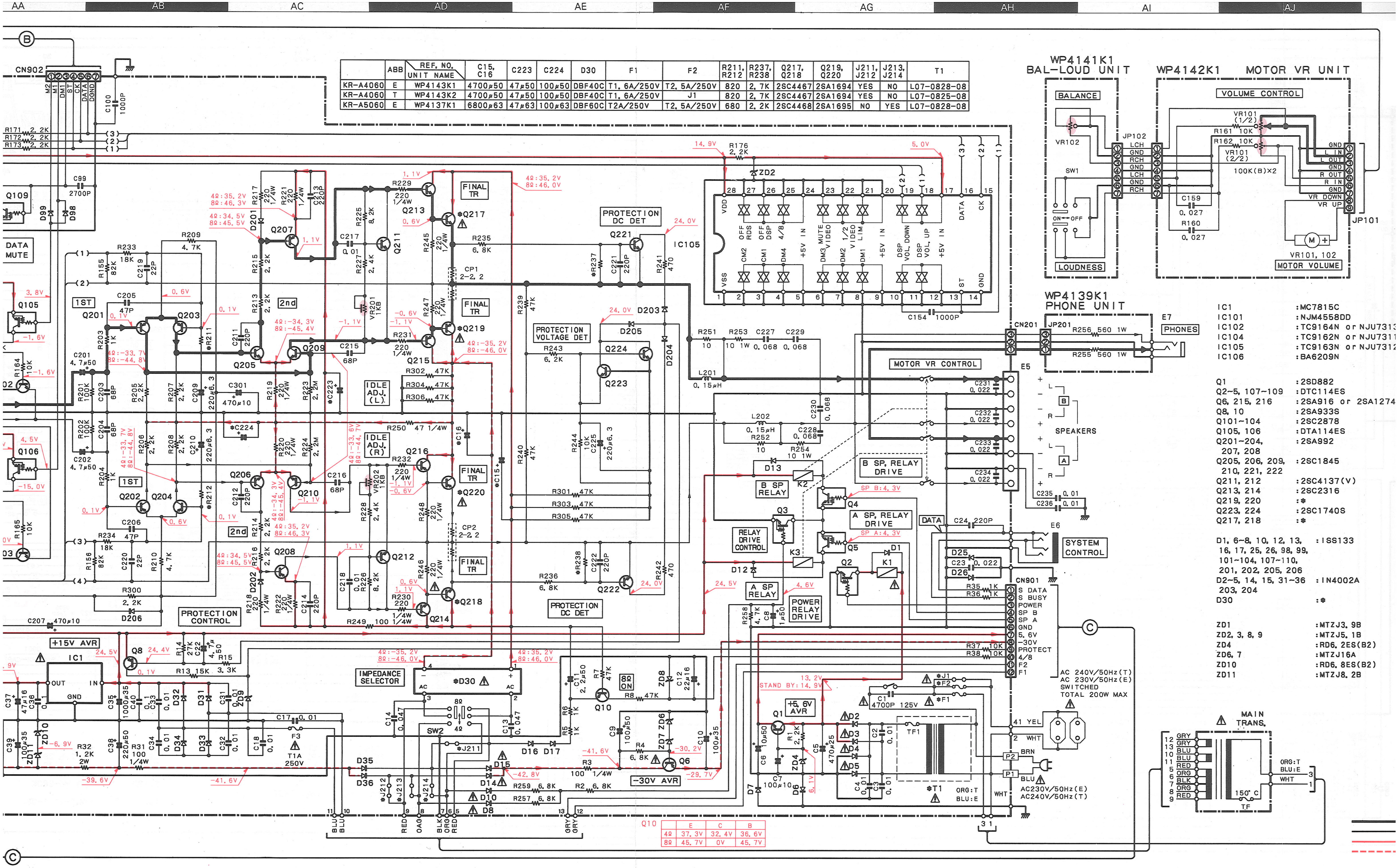

AA
AB
AC
AD
AE
AF
AG
AH
AI
AJ
B
C
CN902
M2
M1
DM1
ST
CK
DATA
DGND
C100 1000P
R171 2.2K
R172 2.2K
R173 2.2K
C99 2700P
Q109
D99
D98
DATA MUTE
Q105
Q106
Q201
Q202
Q203
Q204
Q205
Q206
Q207
Q208
Q209
Q210
Q211
Q212
Q213
Q214
Q215
Q216
Q217
Q218
Q219
Q220
Q221
Q222
Q223
Q224
1ST
2nd
FINAL TR
IDLE ADJ. (L)
IDLE ADJ. (R)
VR201 1KB
VR202 1KB
CP1 2-2.2
CP2 2-2.2
PROTECTION DC DET
PROTECTION VOLTAGE DET
PROTECTION CONTROL
IC105
ZD2
VDD
VSS
DATA
CK
ST
GND
OFF RDS
OFF DSP
4/8
+5V IN
DM3
MUTE VIDEO
1/2 VIDEO LIM
DM2
DM1
DSP VOL. DOWN
DSP VOL. UP
CM2
CM1
DM4
C154 1000P
R176 2.2K
14.9V
5.0V
24.0V
WP4141K1
BAL-LOUD UNIT
BALANCE
VR102
SW1
ON
OFF
LOUDNESS
JP102
LCH
GND
RCH
WP4142K1
MOTOR VR UNIT
VOLUME CONTROL
VR101 (1/2)
VR101 (2/2)
R161 10K
R162 10K
100K(B)×2
C159 0.027
R160 0.027
VR101, 102
MOTOR VOLUME
JP101
L IN
L OUT
R OUT
R IN
VR DOWN
VR UP
WP4139K1
PHONE UNIT
JP201
CN201
R256 560 1W
R255 560 1W
E7
PHONES
E5
MOTOR VR CONTROL
SPEAKERS
B
A
L
R
B SP. RELAY DRIVE
A SP. RELAY DRIVE
B SP RELAY
A SP RELAY
RELAY DRIVE CONTROL
POWER RELAY DRIVE
SP B:4.3V
SP A:4.3V
DATA
E6
SYSTEM CONTROL
CN901
S DATA
S BUSY
POWER
SP B
SP A
GND
5.6V
-30V
PROTECT
4/8
F2
F1
AC 240V/50Hz(T)
AC 230V/50Hz(E)
SWITCHED
TOTAL 200W MAX
STAND BY:14.9V
13.2V
+5.6V AVR
TF1
T1
ORG:T
BLU:E
YEL
WHT
BRN
BLU
AC230V/50Hz(E)
AC240V/50Hz(T)
MAIN TRANS.
GRY
RED
ORG
BLK
150°C
TF
+15V AVR
IC1
OUT
IN
GND
IMPEDANCE SELECTOR
D30
AC
SW2
8Ω ON
-30V AVR
Q1
Q2
Q3
Q4
Q5
Q6
Q8
Q10
K1
K2
K3
F3 T1A 250V
4Ω:35.2V
8Ω:46.0V
4Ω:-35.2V
8Ω:-46.0V
-41.6V
-39.6V
-42.8V
-29.7V
-30.2V

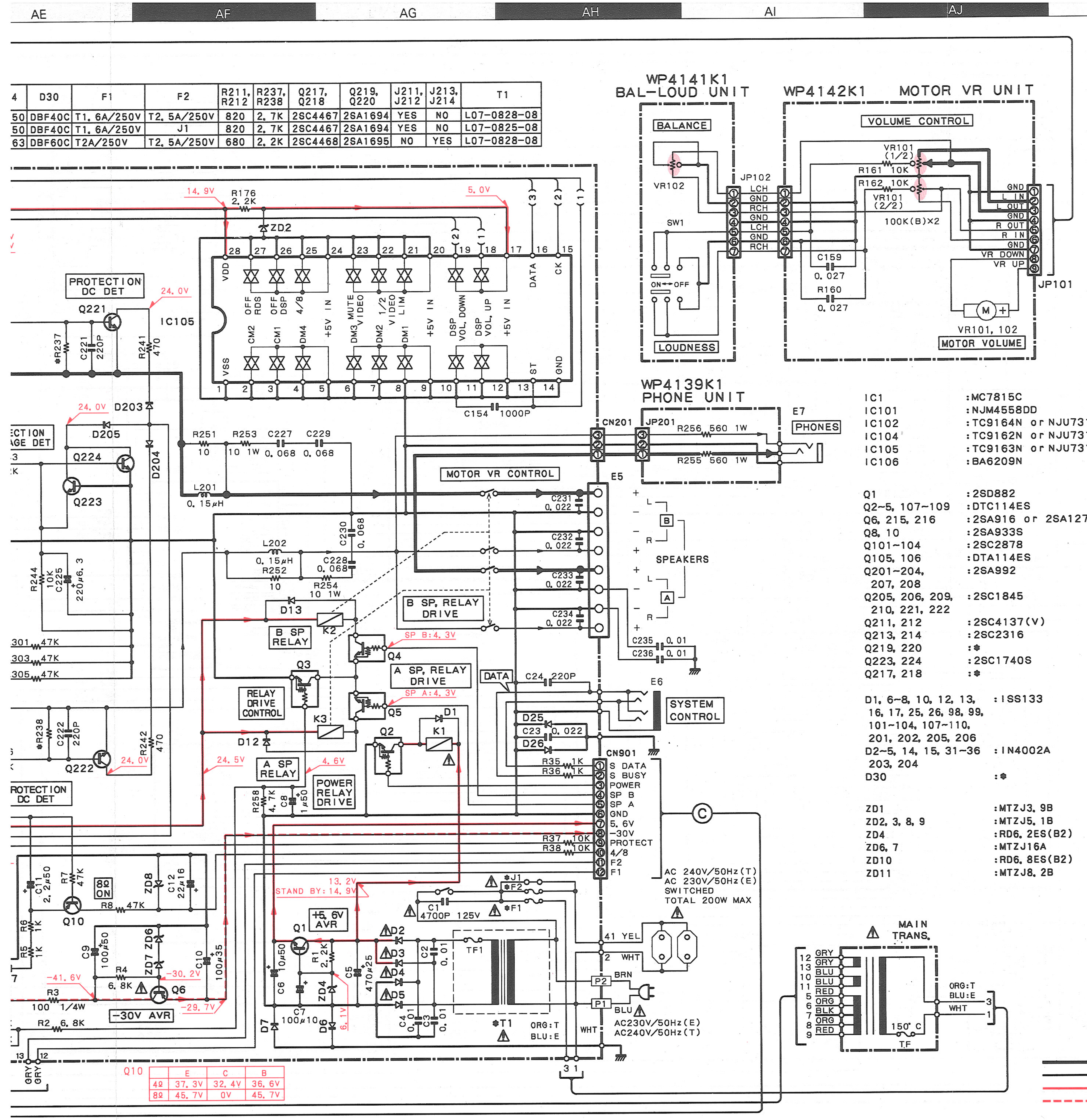
	ABB	REF. NO. UNIT NAME	C15, C16	C223	C224	D30	F1	F2	R211, R212	R237, R238	Q217, Q218	Q219, Q220	J211, J212	J213, J214	T1
KR-A4060	E	WP4143K1	4700µ50	47µ50	100µ50	DBF40C	T1.6A/250V	T2.5A/250V	820	2.7K	2SC4467	2SA1694	YES	NO	L07-0828-08
KR-A4060	T	WP4143K2	4700µ50	47µ50	100µ50	DBF40C	T1.6A/250V	J1	820	2.7K	2SC4467	2SA1694	YES	NO	L07-0825-08
KR-A5060	E	WP4137K1	6800µ63	47µ63	100µ63	DBF60C	T2A/250V	T2.5A/250V	680	2.2K	2SC4468	2SA1695	NO	YES	L07-0828-08

Q10

	E	C	B
4Ω	37.3V	32.4V	36.6V
8Ω	45.7V	0V	45.7V

IC1	:MC7815C
IC101	:NJM4558DD
IC102	:TC9164N or NJU7313
IC104	:TC9162N or NJU7311
IC105	:TC9163N or NJU7312
IC106	:BA6209N
Q1	:2SD882
Q2~5, 107~109	:DTC114ES
Q6, 215, 216	:2SA916 or 2SA1274
Q8, 10	:2SA933S
Q101~104	:2SC2878
Q105, 106	:DTA114ES
Q201~204, 207, 208	:2SA992
Q205, 206, 209, 210, 221, 222	:2SC1845
Q211, 212	:2SC4137(V)
Q213, 214	:2SC2316
Q219, 220	:*
Q223, 224	:2SC1740S
Q217, 218	:*
D1, 6~8, 10, 12, 13, 16, 17, 25, 26, 98, 99, 101~104, 107~110, 201, 202, 205, 206	:ISS133
D2~5, 14, 15, 31~36 203, 204	:IN4002A
D30	:*
ZD1	:MTZJ3.9B
ZD2, 3, 8, 9	:MTZJ5.1B
ZD4	:RD6.2ES(B2)
ZD6, 7	:MTZJ16A
ZD10	:RD6.8ES(B2)
ZD11	:MTZJ8.2B

4	D30	F1	F2	R211, R212	R237, R238	Q217, Q218	Q219, Q220	J211, J212	J213, J214	T1
50	DBF40C	T1. 6A/250V	T2. 5A/250V	820	2. 7K	2SC4467	2SA1694	YES	NO	L07-0828-08
50	DBF40C	T1. 6A/250V	J1	820	2. 7K	2SC4467	2SA1694	YES	NO	L07-0825-08
63	DBF60C	T2A/250V	T2. 5A/250V	680	2. 2K	2SC4468	2SA1695	NO	YES	L07-0828-08


AE
AF
AG
AH
AI
AJ
AK
WP4141K1
BAL-LOUD UNIT
BALANCE
VR102
SW1
ON←→OFF
LOUDNESS
JP102
LCH
GND
RCH
GND
LCH
GND
RCH
WP4142K1 MOTOR VR UNIT
VOLUME CONTROL
VR101 (1/2)
R161 10K
R162 10K
VR101 (2/2)
100K(B)×2
C159 0. 027
R160 0. 027
VR101, 102
MOTOR VOLUME
GND
L IN
L OUT
GND
R OUT
R IN
GND
VR DOWN
VR UP
JP101
14. 9V
R176 2. 2K
5. 0V
ZD2
IC105
VDD
OFF RDS
OFF DSP
4/8
+5V IN
MUTE VIDEO
1/2 VIDEO LIM
+5V IN
DSP VOL. DOWN
DSP VOL. UP
+5V IN
DATA
CK
VSS
CM2
CM1
DM4
DM3
DM2
DM1
ST
GND
C154 1000P
PROTECTION DC DET
24. 0V
Q221
R237
C221 220P
R241 470
24. 0V
D203
D205
Q224
Q223
D204
R251 10
R253 10 1W
C227 0. 068
C229 0. 068
L201 0. 15μH
WP4139K1
PHONE UNIT
CN201
JP201
R256 560 1W
R255 560 1W
E7
PHONES
MOTOR VR CONTROL
E5
C231 0. 022
C232 0. 022
C233 0. 022
C234 0. 022
SPEAKERS
B
A
C235 0. 01
C236 0. 01
L202 0. 15μH
C230 0. 068
C228 0. 068
R252 10
R254 10 1W
R244 10K
C225 220μ6. 3
D13
B SP RELAY
K2
SP B:4. 3V
Q4
B SP. RELAY DRIVE
A SP. RELAY DRIVE
SP A:4. 3V
Q3
RELAY DRIVE CONTROL
K3
Q5
D1
K1
Q2
D12
A SP RELAY
POWER RELAY DRIVE
24. 5V
4. 6V
R258 4. 7K
C8 1μ50
DATA
C24 220P
E6
SYSTEM CONTROL
D25
C23 0. 022
D26
R35 1K
R36 1K
CN901
S DATA
S BUSY
POWER
SP B
SP A
GND
5. 6V
-30V
PROTECT
4/8
F2
F1
R37 10K
R38 10K
301 47K
303 47K
305 47K
R238
C222 220P
R242 470
Q222
24. 0V
PROTECTION DC DET
C11 2. 2μ50
R7 47K
8Ω ON
R8 47K
ZD8
C12 22μ16
Q10
R6 1K
R5 1K
C9 100μ50
ZD7 ZD6
C10 100μ35
-41. 6V
R4 6. 8K
-30. 2V
Q6
R3 100 1/4W
-29. 7V
-30V AVR
R2 6. 8K
13. 2V
STAND BY:14. 9V
Q1
+5. 6V AVR
R1 2. 2K
C6 10μ50
ZD4
C7 100μ10
D7
D6
6. 1V
C5 470μ25
D2
D3
D4
D5
C2 0. 01
C4 0. 01
C3 0. 01
C1 4700P 125V
J1
F2
F1
TF1
T1
ORG:T
BLU:E
WHT
41 YEL
2 WHT
BRN
P2
P1
BLU
AC230V/50Hz(E)
AC240V/50Hz(T)
AC 240V/50Hz(T)
AC 230V/50Hz(E)
SWITCHED
TOTAL 200W MAX
C
3 1
MAIN TRANS.
12 GRY
13 GRY
10 BLU
11 BLU
5 RED
6 ORG
7 BLK
8 ORG
9 RED
ORG:T
BLU:E
WHT
150° C
TF
13
12
GRY
GRY

Q10	E	C	B
4Ω	37. 3V	32. 4V	36. 6V
8Ω	45. 7V	0V	45. 7V

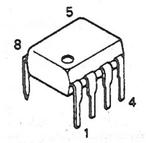
IC1 :MC7815C
IC101 :NJM4558DD
IC102 :TC9164N or NJU7313L
IC104 :TC9162N or NJU7311L
IC105 :TC9163N or NJU7312AL
IC106 :BA6209N

Q1 :2SD882
Q2~5, 107~109 :DTC114ES
Q6, 215, 216 :2SA916 or 2SA1274
Q8, 10 :2SA933S
Q101~104 :2SC2878
Q105, 106 :DTA114ES
Q201~204, 207, 208 :2SA992
Q205, 206, 209, 210, 221, 222 :2SC1845
Q211, 212 :2SC4137(V)
Q213, 214 :2SC2316
Q219, 220 :✽
Q223, 224 :2SC1740S
Q217, 218 :✽

D1, 6~8, 10, 12, 13, 16, 17, 25, 26, 98, 99, 101~104, 107~110, 201, 202, 205, 206 :ISS133
D2~5, 14, 15, 31~36 203, 204 :IN4002A
D30 :✽

ZD1 :MTZJ3. 9B
ZD2, 3, 8, 9 :MTZJ5. 1B
ZD4 :RD6. 2ES(B2)
ZD6, 7 :MTZJ16A
ZD10 :RD6. 8ES(B2)
ZD11 :MTZJ8. 2B

NJM4558DD



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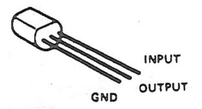
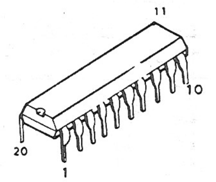
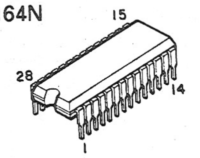

INPUT
OUTPUT
GND

TDA7330A



TC9162N
TC9163N
TC9164N



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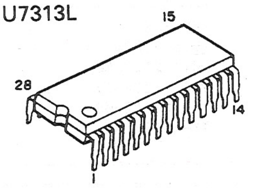
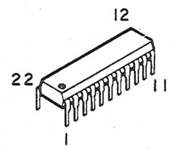
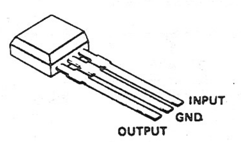
NJU7313L



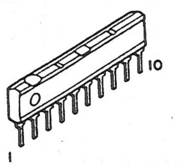
LA3401



UPC78L05


INPUT
GND
OUTPUT

BA6209N



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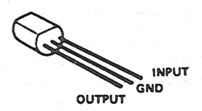
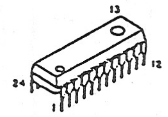

INPUT
GND
OUTPUT

LA1266
LC7218



- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/ and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

━━━━ SIGNAL LINE
━━━━ GND LINE
━━━━ +B LINE
- - - - - -B LINE

2/2 (E, T)

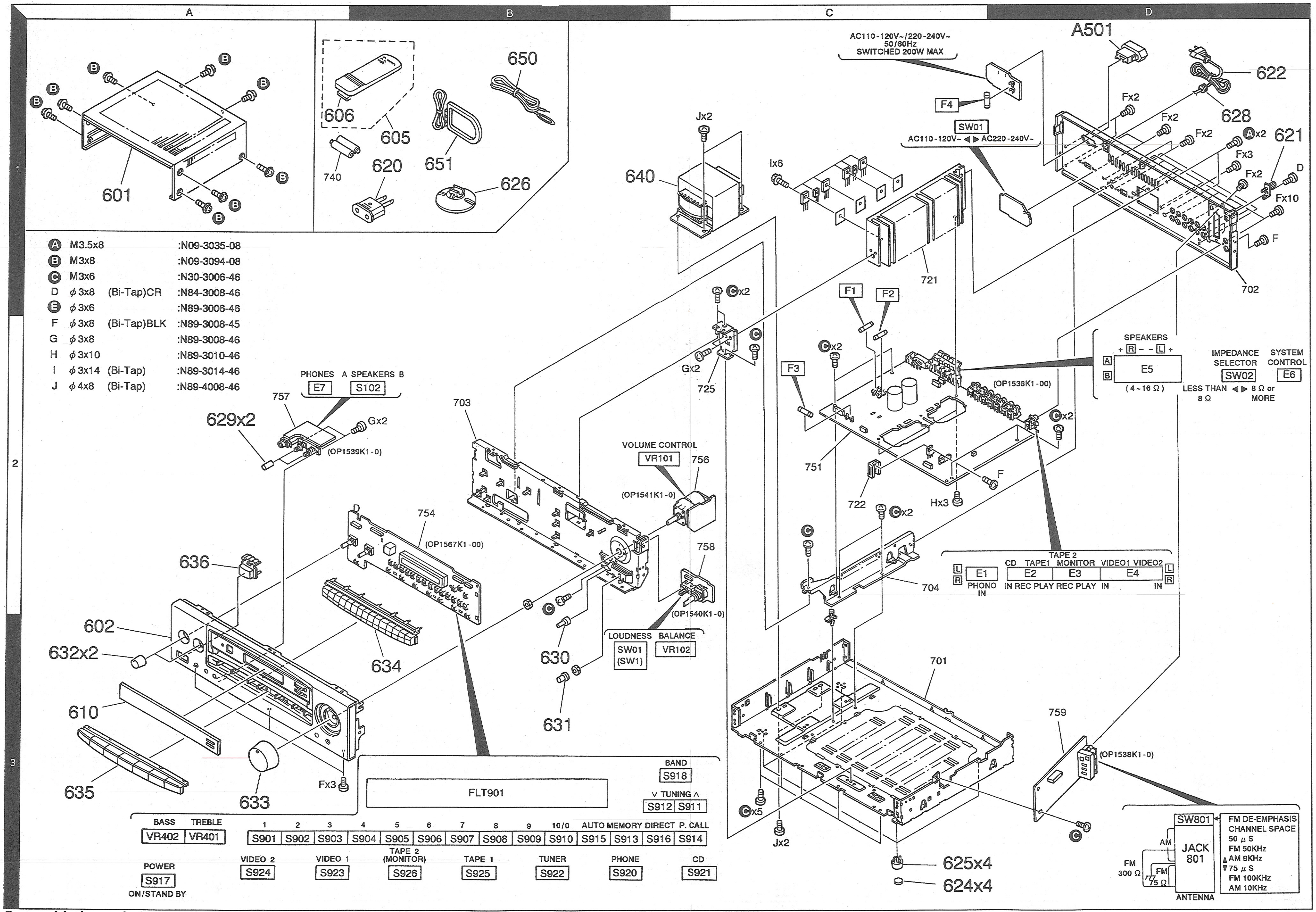
Y05-2880-10

KR-A4060/A5060

KENWOOD

KR-A4060 KR-A4060

EXPLODED VIEW (UNIT)


A
B
C
D
1
2
3
601
606
605
740
620
651
650
626
640
Jx2
Ix6
AC110-120V~/220-240V~
50/60Hz
SWITCHED 200W MAX
F4
SW01
AC110-120V~ ◀ ▶ AC220-240V~
A501
622
628
621
Fx2
Fx3
Fx10
F
D
721
702
F1
F2
F3
Cx2
Gx2
725
(OP1536K1-00)
SPEAKERS
+ R – – L +
A
B
E5
(4～16 Ω)
IMPEDANCE SELECTOR
SW02
LESS THAN 8 Ω ◀ ▶ 8 Ω or MORE
SYSTEM CONTROL
E6
751
722
Hx3
PHONES A SPEAKERS B
E7
S102
757
629x2
(OP1539K1-0)
703
VOLUME CONTROL
VR101
756
(OP1541K1-0)
754
(OP1567K1-00)
758
(OP1540K1-0)
LOUDNESS
SW01
(SW1)
BALANCE
VR102
636
602
632x2
634
630
631
610
635
633
Fx3
704
TAPE 2
CD TAPE1 MONITOR VIDEO1 VIDEO2
L
R
E1
E2
E3
E4
PHONO IN
IN REC PLAY REC PLAY IN IN
701
759
(OP1538K1-0)
Cx5
Jx2
625x4
624x4
FLT901
BAND
S918
∨ TUNING ∧
S912
S911
BASS
VR402
TREBLE
VR401
1 2 3 4 5 6 7 8 9 10/0 AUTO MEMORY DIRECT P. CALL
S901 S902 S903 S904 S905 S906 S907 S908 S909 S910 S915 S913 S916 S914
POWER
S917
ON/STAND BY
VIDEO 2
S924
VIDEO 1
S923
TAPE 2 (MONITOR)
S926
TAPE 1
S925
TUNER
S922
PHONE
S920
CD
S921
SW801
JACK 801
ANTENNA
AM
FM 300 Ω
FM 75 Ω
FM DE-EMPHASIS
CHANNEL SPACE
50 μS
FM 50KHz
▲AM 9KHz
▼75 μS
FM 100KHz
AM 10KHz

Ⓐ	M3.5x8		:N09-3035-08
Ⓑ	M3x8		:N09-3094-08
Ⓒ	M3x6		:N30-3006-46
D	ϕ3x8	(Bi-Tap)CR	:N84-3008-46
Ⓔ	ϕ3x6		:N89-3006-46
F	ϕ3x8	(Bi-Tap)BLK	:N89-3008-45
G	ϕ3x8		:N89-3008-46
H	ϕ3x10		:N89-3010-46
I	ϕ3x14	(Bi-Tap)	:N89-3014-46
J	ϕ4x8	(Bi-Tap)	:N89-4008-46

EXCEPT E,T

Parts with the exploded numbers larger than 700 are not supplied.

KR-A4060

PARTS LIST

EXCEPT E,T

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①

Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
KR-A4060						
601	1A	*	A01-3167-08	METALLIC CABINET	MX	
601	1A	*	A01-3168-08	METALLIC CABINET	KPR	
602	3A	*	A60-0634-08	FRONT PANEL		
605	1B	*	A70-0985-08	REMOTE CONTROL ASSY		
606	1A		A09-0170-08	BATTERY COVER		
			B46-0197-00	CARD REGISTRATION	K	
610	3A	*	B10-2040-08	FRONT GLASS		
-			B46-0092-23	WARRNTY CARD	K	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-23	WARRANTY CARD	P	
-		*	B60-1577-08	INSTRUCTION MANUAL (ENGLISH)	KXR	
-		*	B60-1578-08	INSTRUCTION MANUAL (ENG,FRE)	P	
-		*	B60-1579-08	INSTRUCTION MANUAL (ENG,CHI)	M	
-		*	B60-1580-08	INSTRUCTION MANUAL (ENGLISH)	ET	
-		*	B60-1581-08	INSTRUCTION MANUAL (FR,GU,NU)	E	
-		*	B60-1582-08	INSTRUCTION MANUAL (SPA,ITA)	E	
-		*	B60-1619-08	INSTRUCTION MANUAL (SPANISH)	MR	
⚠ 620	1B		E03-0115-05	AC PLUG ADAPTER	M	
621	1D		E21-0023-08	GND TERMINAL		
⚠ 622	1D		E30-0459-05	AC POWER CORD	M	
⚠ 622	1D		E30-0974-05	AC POWER CORD	KPR	
⚠ 622	1D		E30-1341-05	AC POWER CORD	X	
⚠ A501	1D		E03-0055-08	AC OUTLET	M	
⚠ A501	1D	*	E03-0123-08	AC OUTLET	KPR	
⚠ A501	1D	*	E03-0318-08	AC OUTLET	X	
624	3C		G13-0267-08	CUSHION FOOT		
		*	H50-1028-08	ITEM CATONBOX	KPXR	
		*	H50-1029-08	ITEM CATONBOX	M	
-		*	H10-5855-08	POLYSTYRENE FOAMED FIXTURE		
-			H25-0078-04	PROTECTION BAG (ACCESSORY)		
-			H25-0647-08	PROTECTION BAG (MANUAL)		
-		*	H25-1543-08	PROTECTION BAG (UNIT)		
625	3C		J02-1107-08	FOOT		
626	1B		J19-2815-04	ANTENNA HOLDER		
⚠ 628	1D		J42-0198-08	AC CORD BUSHING		
629	2A		K27-2033-08	KNOB SPEAKERS		
630	3B	*	K27-2166-08	KNOB LOUDNESS		
631	3B		K29-4444-08	KNOB BALANCE		
632	3A		K29-5952-08	KNOB BASS,TREBLE		
633	3A		K29-5953-08	KNOB VOLUME		
634	3B		K29-5954-08	KNOB PRESET (10KEY)		
635	3A		K29-5955-08	KNOB FUNCTION		
636	2A		K29-5956-08	KNOB POWER		
⚠ 640	1B		L07-0388-08	TRANCEFORMER	KPR	
⚠ 640	1B	*	L07-1803-08	TRANCEFORMER	M	
⚠ 640	1B	*	L07-1804-08	TRANCEFORMER	X	
A	2C		N09-2907-05	BINDING HEAD TAPTITE SCREW		
B	1A	*	N09-3094-08	BINDING HEAD TAPTITE SCREW		
C	2D		N30-3006-46	SCREW		
D	1D		N84-3008-46	TAPTITE SCREW		

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②

Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
E	3A,1D		N89-3008-45	BINDING HEAD TAPTITE SCREW		
F	2B,2D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
F	2B,2D		N89-3014-46	BINDING HEAD TAPTITE SCREW		
G	1C,3C		N89-4008-46	BINDING HEAD TAPTITE SCREW		
650	1B		T90-0182-05	T TYPE ANTENNA		
651	1B		T90-0184-08	LOOP ANTENNA		
ELECTRIC PARTS						
D901			B30-0413-05	LED (LTL4213(RED)POWER)		
⚠ C1			CC45CH1H472J	CERAMIC 4700PF J		
C5			CE04KW1E471M	ELECTRO 470UF 25WV		
C6			CE04KW1H100M	ELECTRO 10UF 50WV		
C7			CE04KW1A101M	ELECTRO 100UF 10WV		
C8			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C9			CE04KW1H101M	ELECTRO 100UF 50WV		
C10			CE04KW1V101M	ELECTRO 100UF 35WV		
C11			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C12			CE04KW1C470M	ELECTRO 47UF 16WV		
C13 ,14			CK45FB1H473Z	CERAMIC 0.047UF Z		
C15 ,16			C90-0366-05	ELECTRO 6800UF 50WV		
C22			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C23			CK45FF1H223Z	CERAMIC 0.022UF Z		
C2-4			CK45FF1H103Z	CERAMIC 0.010UF Z		
C24			CK45CH1H102J	CERAMIC 1000PF J		
C32 ,33			CK45FF1H103Z	CERAMIC 0.010UF Z		
C35			CE04KW1E471M	ELECTRO 470UF 25WV		
C36			CK45FF1H104Z	CERAMIC 0.10UF Z		
C37			CE04KW1C470M	ELECTRO 47UF 16WV		
C38			CE04KW1H221M	ELECTRO 220UF 50WV		
C39			CE04KW1C101M	ELECTRO 100UF 16WV		
C40			CK45FF1H104Z	CERAMIC 0.10UF Z		
C101,102			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C103,104			CC45CH1H221J	CERAMIC 220PF J		
C105,106			CK45CH1H102J	CERAMIC 1000PF J		
C107,108			CE04KW1A101M	ELECTRO 100UF 10WV		
C109,110			CQ92FM1H332J	MYLAR 3300PF J		
C111,112			CQ92FM1H123J	MYLAR 0.012UF J		
C113,114			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C115			CK45FF1H103Z	CERAMIC 0.010UF Z		
C117,118			CE04KW1C470M	ELECTRO 47UF 16WV		
C135,136			CE04KW1C470M	ELECTRO 47UF 16WV		
C137			CK45FF1H472Z	CERAMIC 4700PF Z		
C138,139			CK45CH1H102J	CERAMIC 1000PF J		
C149,150			CK45FF1H103Z	CERAMIC 0.010UF Z		
C151			CE04KW1C470M	ELECTRO 47UF 16WV		
C152			CE04BP1H010M	NP-ELEC 1.0UF 50WV		
C153-155			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C156			CE04KW1C101M	ELECTRO 100UF 16WV		
C157			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C159,160			CQ92FM1H273J	MYLAR 0.027UF J		
C201,202			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C203,204			CC45SL1H680J	CERAMIC 68PF J		
C205-208			CC45SL1H101J	CERAMIC 100PF J		
C209,210			CE04KW1A101M	ELECTRO 100UF 10WV		

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KR-A4060

PARTS LIST

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③

Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C211-214			CC45CH1H221J	CERAMIC 220PF J		
C215,216			CC45SL1H680J	CERAMIC 68PF J		
C217,218			CK45FF1H103Z	CERAMIC 0.010UF Z		
C219,220			KHR-QP1801J6	CERAMIC 18PF J		
C221,222			CC45CH1H221J	CERAMIC 220PF J		
C223			CE04KW1J470M	ELECTRO 47UF 63WV		
C224			CE04KW1J101M	ELECTRO 100UF 63WV		
C225			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C229,230			CQ92FM1H333J	MYLAR 0.033UF J		
C401,402			CQ92FM1H822J	MYLAR 8200PF J		
C407,408			CQ92FM1H333J	MYLAR 0.033UF J		
C409,410			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C411,412			CQ92FM1H153J	MYLAR 0.015UF J		
C413,414			CQ92FM1H683J	MYLAR 0.068UF J		
C801			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C802			CE04KW1C470M	ELECTRO 47UF 16WV		
C803			CQ92FM1H273J	MYLAR 0.027UF J		
C804			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C805			CE04KW1C470M	ELECTRO 47UF 16WV		
C806,807			CK45F1H103M	CERAMIC 0.010UF M		
C809			CK45FF1H223Z	CERAMIC 0.022UF Z		
C816			CK45FF1H223Z	CERAMIC 0.022UF Z		
C817			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C818			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C819			CK45FF1H223Z	CERAMIC 0.022UF Z		
C820			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C821			CK45F1H103M	CERAMIC 0.010UF M		
C822			CK45FF1H223Z	CERAMIC 0.022UF Z		
C823			CE04KW1H100M	ELECTRO 10UF 50WV		
C824			CK45FF1H223Z	CERAMIC 0.022UF Z		
C825			CQ92FM1H153J	MYLAR 0.015UF J		
C826			CE04KW1H100M	ELECTRO 10UF 50WV		
C827			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C828-830			CK45F1H103M	CERAMIC 0.010UF M		
C831			CC45CH1H101J	CERAMIC 100PF J		
C832			CK45F1H103M	CERAMIC 0.010UF M		
C833			CE04KW1C470M	ELECTRO 47UF 16WV		
C839			CQ09FS1H471J	POLYSTY 470PF J		
C840			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C841			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C842			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C843			CQ92FM1H473J	MYLAR 0.047UF J		
C844			CC45FB1H471K	CERAMIC 470PF K		
C845			CK45F1H103M	CERAMIC 0.010UF M		
C846,847			CC45SL1H151K	CERAMIC 150PF K		
C849			CE04KW1C221M	ELECTRO 220UF 16WV		
C850,851			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C852			CQ92FM1H222J	MYLAR 2200PF J	M	
C853			CQ92FM1H562J	MYLAR 5600PF J	M	
C854,855			CQ92FM1H153J	MYLAR 0.015UF J	MX	
C854,855			CQ92FM1H223J	MYLAR 0.022UF J	KPR	
C856			CK45F1H103M	CERAMIC 0.010UF M		
C857			CE04KW1C470M	ELECTRO 47UF 16WV		
C858,859			CC45CH1H220J	CERAMIC 22PF J		
C860-862			CC45CH1H101J	CERAMIC 100PF J		

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④

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C863			CK45F1H103M	CERAMIC 0.010UF M		
C864			CQ92FM1H222J	MYLAR 2200PF J	M	
C865			CQ92FM1H562J	MYLAR 5600PF J	M	
C890			CC45CH1H220J	CERAMIC 22PF J		
C902			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C903			CK45F1H103M	CERAMIC 0.010UF M		
C904			CE04KW1A101M	ELECTRO 100UF 10WV		
C905			C90-1827-05	ELECTRO 0.047UF 5.5WV		
C906,907			CK45F1H103M	CERAMIC 0.010UF M		
C908			CC45CH1H221J	CERAMIC 220PF J	KPR	
C910			CK45FF1H104Z	CERAMIC 0.10UF Z		
C920			CE04KW1H100M	ELECTRO 10UF 50WV		
C921			CK45FF1H104Z	CERAMIC 0.10UF Z		
C922			CE04KW1A101M	ELECTRO 100UF 10WV		
C923			CK45FB1H473Z	CERAMIC 0.047UF Z		
C926			CC45SL1H101J	CERAMIC 100PF J		
⚠ A501	1D		E03-0144-08	AC OUTLET	KPR	
E1			E13-0249-05	TERMINAL BOARD PHONO		
E2		*	E63-0118-08	TERMINAL BOARD CD TAPE1		
E5			E70-0004-08	TERMINAL BOARD SPEAKERS		
E6			E11-0188-05	PHONE JACK SYNCHRO		
E7			E11-0263-08	PHONE JACK HEAD PHONE		
E3,4			E13-0445-05	TERMINAL BOARD TAPE2 VIDEO1,2		
JACK801			E70-0005-08	TERMINAL BOARD ANTENNA		
⚠ F1			F04-5022-05	FUSE UL/CSA 5A(125V)	KPR	
⚠ F1			F06-2021-05	FUSE T2.0AL(250V)	MX	
⚠ F2			F05-2525-05	FUSE T2.5AL (250V)	MX	
⚠ F2			F06-2525-05	FUSE UL/CSA 2.5A(125V)	P	
⚠ F3			F06-1022-05	FUSE T1.0AL(250V)	MX	
⚠ F3			KHT-JF1209L1	FUSE UL/CSA T1.0A(250V)	KPR	
⚠ F4			F06-2021-05	FUSE T2.0AL(250V)	M	
			J13-0084-08	FUSE HOLDER		
CF801,802			L72-0531-05	CERAMIC FILTER 10.7MHz		
CF803			L72-0096-05	CERAMIC FILTER		
L201,202			L39-1303-08	INDUCTOR 0.15UH		
L801		*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L802			L39-0189-05	COIL		
L804			L30-0488-05	IFT-AM		
L806			L30-0439-05	IFT-FM		
L901		*	L40-1001-17	COIL INDUCTOR 10UH		
⚠ T1			L07-0408-08	TRANS FORMER	KPR	
⚠ T1			L07-0789-08	TRANS FORMER	X	
⚠ T1			L07-0790-08	TRANS FORMER	M	
X801			L77-1122-05	CRYSTAL RESONATOR 7.2MHz		
X901			L78-0209-05	RESONATOR 4.19MHz		
F	2D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP1,2			R90-0187-05	0.22 J 5W		
R0			KHR-RC3356J0	RD 3.3M J 1/2W		
R3			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
⚠ R31			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R32			RS14DB3D122J	FL-PROOF RS 1.2K J 2W		

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Y: AAFES (Europe) **X**: Australia **M**: Other Areas

⚠ indicates safety critical components.

PARTS LIST

⁎ New Parts
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Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

⑤

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
R177			RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
R217-222			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R229-232			RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R245-248			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R249			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R250			RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R253,254			RS14DB3A100J	FL-PROOF RS 10 J 1W		
R255,256			RS14DB3A561J	FL-PROOF RS 560 J 1W		
R806			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R810			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R836			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R851			RD14GB2E820J	FL-PROOF RD 82 J 1/4W		
R869			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
VR101		*	R39-0001-08	POTENTIOMETER VOLUME 100KBX2		
VR102			R10-5071-08	POTENTIOMETER BALANCE		
VR201,202			R12-1066-05	TRIMMING POT. IDLE ADJ 1KB		
VR401,402			R39-0002-08	POTENTIOMETER BASS,TREBLE100KC		
VR801			R12-3166-08	TRIM POT. 33KB FM TUNE LEVEL		
VR802			R12-1053-05	TRIM POT. 4.7KB VCO		
VR804			R12-3071-05	TRIM POT. 10KB AM TUNE LEVEL		
⚠ K1			KHR-0Y0026M1	MAGNETIC RELAY POWER		
K2			S76-0035-08	MAGNETIC RELAY SPEAKER		
S102			S42-2156-05	PUSH SWITCH SPEAKERS		
S901-918		*	S70-0030-08	TACT SWITCH KEY BOARD		
S920-926		*	S70-0030-08	TACT SWITCH KEY BOARD		
⚠ SW01			S31-3010-05	SLIDE SWITCH VOLTAGE SELECT	M	
SW1		*	S68-0040-08	PUSH SWITCH LOUNDNESS		
SW2			S62-0032-08	SLIDE SWITCH IMPEDANCE SEL		
SW801			S62-0012-08	SLIDE SWITCH CH. SPACE	M	
D1			1SS131	DIODE		
D12			1SS131	DIODE		
D2-5			1N4002A	DIODE		
⚠ D30			DBF60C	DIODE		
D6-9			1SS131	DIODE		
D101-112			1SS131	DIODE		
D107-110			1SS131	DIODE		
⚠ D14,15			1N4002A	DIODE		
D201-205			1SS131	DIODE		
D25,26			1SS131	DIODE		
⚠ D31-36			1N4002A	DIODE		
D37,38			1SS131	DIODE		
D801,802			1SS133	DIODE		
D810			RD5.1ES(B2)	ZENER DIODE		
D811,812			1SS133	DIODE		
D902-904			1SS133	DIODE		
D905			MTZJ6.8B	ZENER DIODE		
D908			1SS133	DIODE	X	
D909-918			1SS133	DIODE		
D920			RD4.7ES(B2)	ZENER DIODE		
D921			1SS133	DIODE		
D924			1SS133	DIODE	KPR	
FLT901			5-MT-167GK	FLUORESCENT INDICATOR TUBE		
⚠ IC1			KIA78012AP	IC(+12V AVR)		
IC101			NJM4558DD	IC(OP AMP X2)		

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EXCEPT E,T

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⑥

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
IC102			NJU7313L	IC(ANALOG SWITCH)		
IC102			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC104			NJU7311L	IC(ANALOG SWITCH)		
IC104			TC9162N	IC(ANALOG SWITCH ARRAY)		
IC106			BA6209N	IC(MOTOR DRIVER)		
IC801			LA1265	IC(FM/AM TUNER)		
IC802			AN7470	IC(FM MPX)		
IC803			LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
IC901			CXP5016-526S	IC(4bit MICROPROCESSOR)		
IC901			CXP5016-531S	IC(4bit MICROPROCESSOR)		
⚠ Q1			2SC2316	TRANSISTOR		
Q4			2SC1740S	TRANSISTOR		
Q7			DTC114ES	DIGITAL TRANSISTOR		
⚠ Q8			2SA916	TRANSISTOR		
Q2,3			DTC114ES	DIGITAL TRANSISTOR		
Q5,6			2SA933	TRANSISTOR		
Q101-104			2SC2878	TRANSISTOR		
Q105,106			DTA114TS	DIGITAL TRANSISTOR		
Q201-204			2SA992	TRANSISTOR		
⚠ Q205,206			2SC1845	TRANSISTOR		
Q207,208			2SA992	TRANSISTOR		
⚠ Q209,210			2SC1845	TRANSISTOR		
Q211,212			2SC4137	TRANSISTOR		
Q213,214			2SC2316	TRANSISTOR		
Q215,216			2SA916	TRANSISTOR		
⚠ Q217,218			2SC4468	TRANSISTOR		
⚠ Q219,210			2SA1695	TRANSISTOR		
Q221,222			2SC1845	TRANSISTOR		
Q223,224			2SC1740S	TRANSISTOR		
Q801			KTC31940	TRANSISTOR		
Q803			2SC1740S	TRANSISTOR		
Q804			2SC1845F	TRANSISTOR		
Q808,809			2SA933S	TRANSISTOR		
Q811,812			2SC1740S	TRANSISTOR	M	
Q901			2SA933S	TRANSISTOR		
Q902			2SC1740S	TRANSISTOR		
Q903			DTA143TS	TRANSISTOR		
ZD1			MTZJ3.9B	ZENER DIODE		
ZD3			MTZJ5.1B	ZENER DIODE		
ZD4			MTZJ6.2B	ZENER DIODE		
ZD6			RD15ES(B2)	ZENER DIODE		
ZD7			MTZ12B	ZENER DIODE		
ZD10,11			MTZJ6.2B	ZENER DIODE		
A901			W02-1111-08	ELECTRIC CIRCUIT MODULE		
TU801			W02-2504-08	FM FRONT END UNIT		

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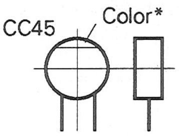
PARTS LIST

CAPACITORS

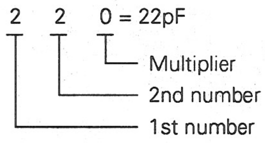
CC	45	TH	1H	220	J
1	2	3	4	5	6

1 = Type ... ceramic, electrolytic, etc.
2 = Shape ... round, square, ect.
3 = Temp. coefficient
4 = Voltage rating
5 = Value
6 = Tolerance



• Capacitor value

010 = 1pF
100 = 10pF
101 = 100pF
102 = 1000pF = 0.001µF
103 = 0.01µF



• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	–80	–150	–220	–330	–470	–750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = –470 ± 60ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40	+80	+100	More than 10µF – 10 ~ +50
							–20	–20	–0	Less than 4.7µF –10 ~ +75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

2nd word 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	–
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	–
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	–

• Chip capacitors

(EX)	C C	7 3	F	S L	1 H	0 0 0	J
	1	2	3	4	5	6	7

(Chip) (CH, RH, UJ, SL)

(EX)	C K	7 3	F	F	1 H	0 0 0	Z
	1	2	3	4	5	6	7

(Chip) (B, F)

Refer to the table above.

1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Voltage rating
6 = Value
7 = Tolerance

Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

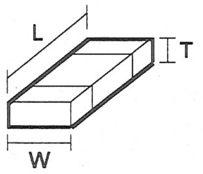
RESISTORS

• Chip resistor (Carbon)

(EX)	R K	7 3	E	B	2 B	0 0 0	J
	1	2	3	4	5	6	7

(Chip) (B,F)

Dimension



• Carbon resistor (Normal type)

(EX)	R D	1 4	B	B	2 C	0 0 0	J
	1	2	3	4	5	6	7

1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Rating wattage
6 = Value
7 = Tolerance

Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6±0.2	0.8±0.2	0.5±0.1

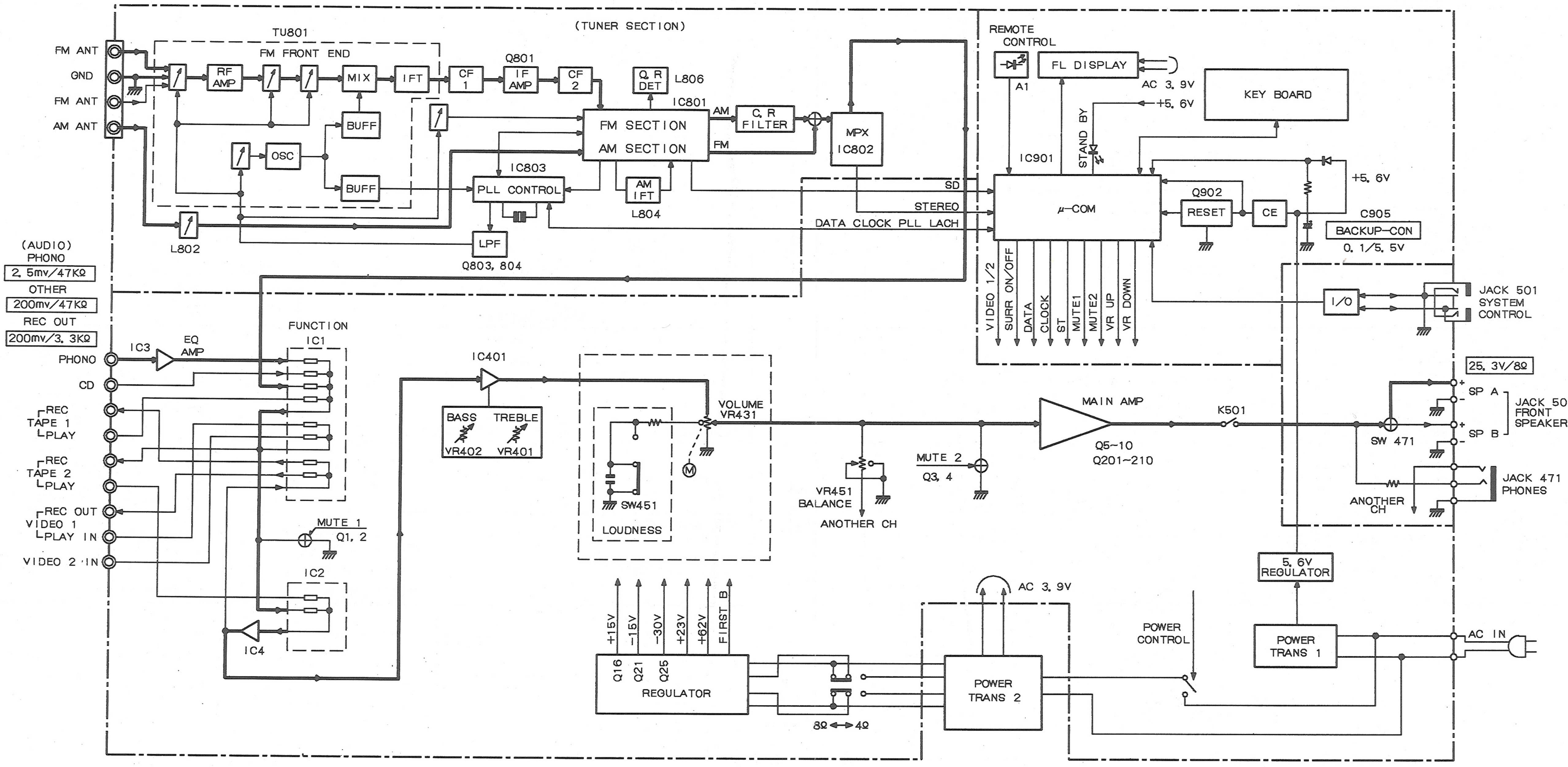
Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

EXCEPT E,T

KR-A5060 KR-A5060

BLOCK DIAGRAM


(TUNER SECTION)
TU801
FM FRONT END
FM ANT
GND
FM ANT
AM ANT
RF AMP
MIX
IFT
BUFF
OSC
BUFF
CF 1
Q801
IF AMP
CF 2
Q.R DET
L806
IC801
FM SECTION
AM SECTION
AM
FM
C.R FILTER
MPX
IC802
IC803
PLL CONTROL
AM IFT
L804
LPF
Q803, 804
L802
SD
STEREO
DATA CLOCK PLL LACH
REMOTE CONTROL
A1
FL DISPLAY
AC 3.9V
+5.6V
STAND BY
KEY BOARD
IC901
μ-COM
Q902
RESET
CE
+5.6V
C905
BACKUP-CON
0.1/5.5V
VIDEO 1/2
SURR ON/OFF
DATA
CLOCK
ST
MUTE1
MUTE2
VR UP
VR DOWN
I/O
JACK 501
SYSTEM CONTROL
(AUDIO)
PHONO
2.5mv/47KΩ
OTHER
200mv/47KΩ
REC OUT
200mv/3.3KΩ
PHONO
CD
REC
TAPE 1
PLAY
REC
TAPE 2
PLAY
REC OUT
VIDEO 1
PLAY IN
VIDEO 2 IN
IC3
EQ AMP
FUNCTION
IC1
MUTE 1
Q1, 2
IC2
IC4
IC401
BASS
TREBLE
VR402
VR401
VOLUME
VR431
M
SW451
LOUDNESS
VR451
BALANCE
ANOTHER CH
MUTE 2
Q3, 4
MAIN AMP
Q5-10
Q201-210
K501
25.3V/8Ω
SP A
SP B
JACK 502
FRONT SPEAKER
SW 471
ANOTHER CH
JACK 471
PHONES
5.6V REGULATOR
+15V
-15V
-30V
+23V
+62V
FIRST B
Q16
Q21
Q25
REGULATOR
8Ω ⟷ 4Ω
AC 3.9V
POWER TRANS 2
POWER CONTROL
POWER TRANS 1
AC IN

EXCEPT E,T

KR-A5060

ADJUSTMENT

AM section : If alignment point is "–", confirm the value. If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		**SELECTOR : FM**					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(ANT. input)	Connect a DC voltmeter between TP803 and TP804. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(ANT. input)	Connect a frequency counter between TP805 and TP806. (TUNER UNIT)	AUTO 98.0MHz	L802 (TUNER UNIT)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(ANT. input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
4	TUNING LEVEL	(A) 98.0MHz 0 dev. 18dBμ(ANT. input)	(B)	AUTO or MONO 98.0MHz	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	
AM SECTION		**SELECTOR : AM**					
(1)	TUNING LEVEL	(D) 1000 (999) kHz 26dBμ(ANT. input)	(B)	–	VR804 (TUNER UNIT)	Adjust VR804 and stop at the point where FLT901 (TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	–	Connect a DC voltmeter across CP1 (L), CP2 (R) (MAIN UNIT)	Volume : 0	VR1 (L) VR2 (R) (AUDIO UNIT)	10mV	(d)

KR-A5060

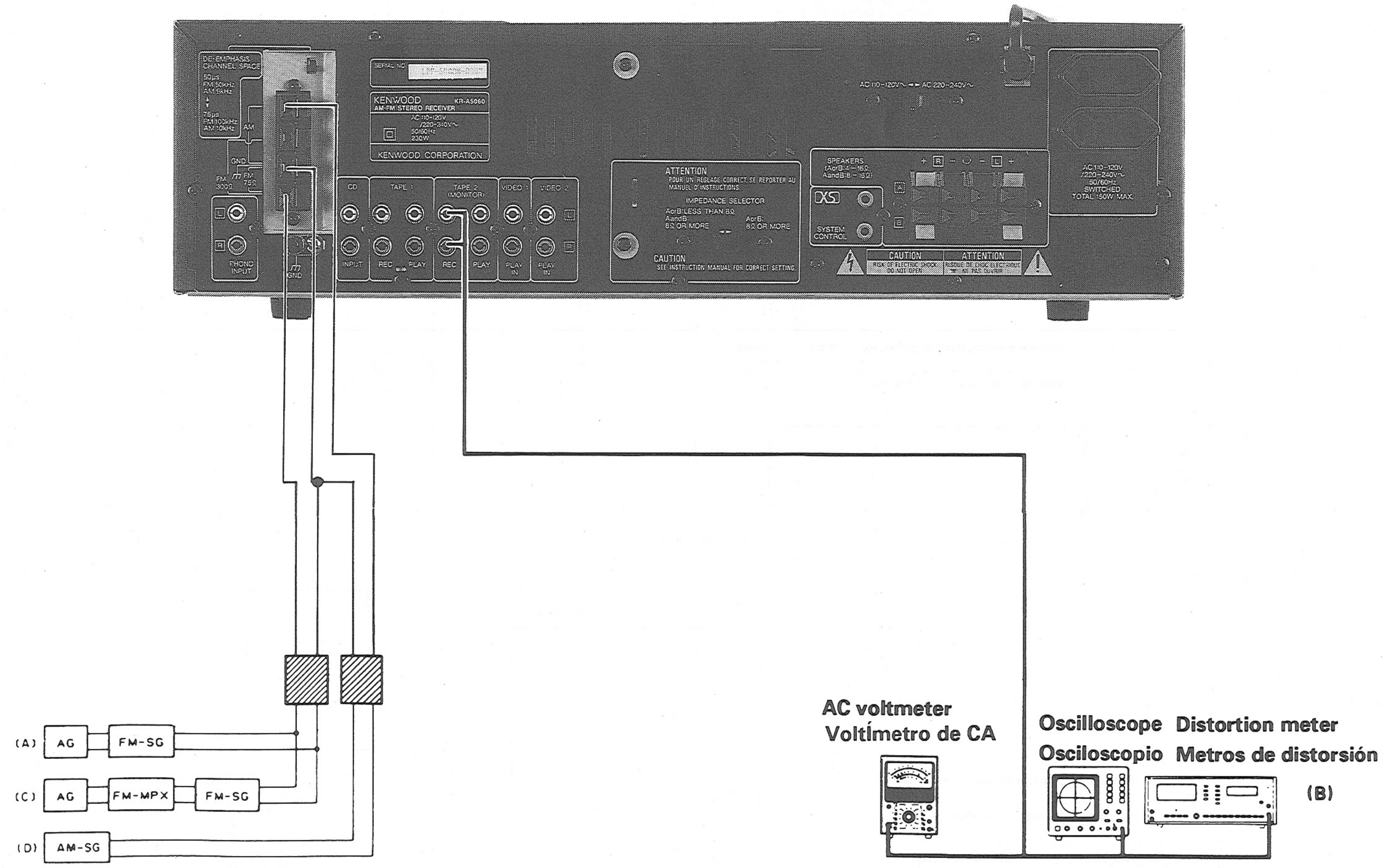
AJUSTES

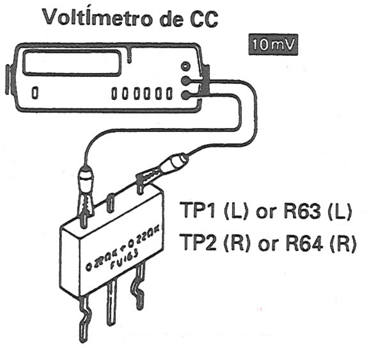
Sección de AM : Si el punto de alineación es "–", confirme el valor. Si no, reemplace el paquete de entrada.

Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM		**SELECTOR ; FM**					
1	DISCRIMINADOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(Entrada de antena)	Conecte un voltímetro de CC entre TP803 y TP804. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(Entrada de antena)	Conecte un Frecuencímetro entre TP805 y TP806. (UNIDAD DEL SINTONIZADOR)	AUTO 98.0MHz	L802 (UNIDAD DEL SINTONIZADOR)	19.00kHz	(b)
3	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(Entrada de antena)	(B)	98.0MHz	IFT (W02-)	Distorsión mínima. (L o R)	
4	NIVEL DE SINTONÍA	(A) 98.0MHz 0 dev. 18dBμ(Entrada de antena)	(B)	AUTO o MONO 98.0MHz	VR801 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AM		**SELECTOR ; AM**					
(1)	NIVEL DE SINTONÍA	(D) 1000 (999) kHz 26dBμ(Entrada de antena)	(B)	–	VR804 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AUDIO							
<1>	CORRIENTE EN REPOSO	–	Conecte un voltímetro de CC entre TP1 (L) y TP2 (R) (UNIDAD PRINCIPAL)	Volumen : 0	VR1 (L) VR2 (R) (UNIDAD AUDIO)	10mV	(d)

ADJUSTMENT/AJUSTES

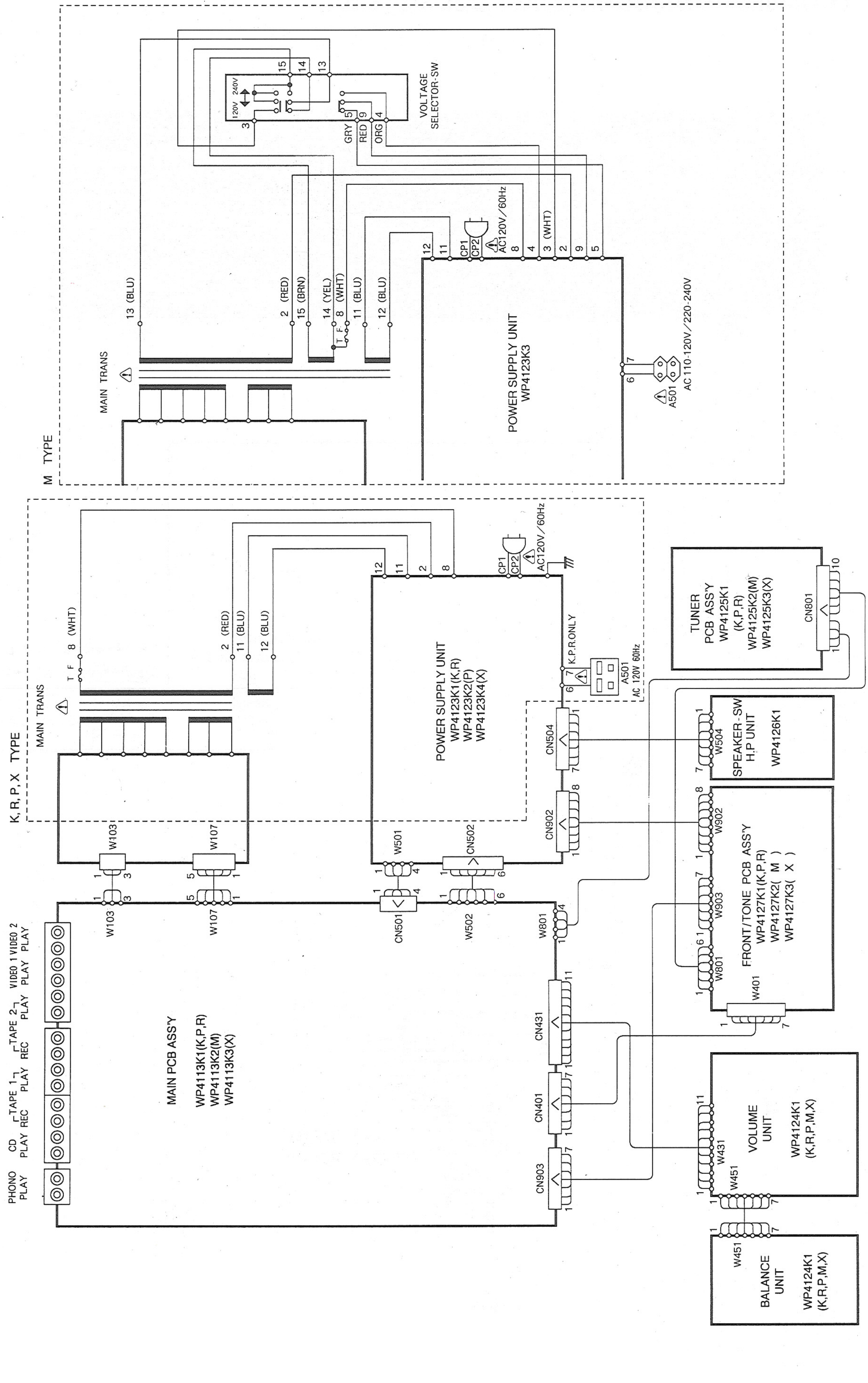
SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA


KENWOOD
KR-A5060
AM-FM STEREO RECEIVER
KENWOOD CORPORATION
PHONO INPUT
CD
TAPE 1
TAPE 2 (MONITOR)
VIDEO 1
VIDEO 2
INPUT
REC
PLAY
ATTENTION
IMPEDANCE SELECTOR
CAUTION
SPEAKERS
SYSTEM CONTROL
(A) AG FM-SG
(C) AG FM-MPX FM-SG
(D) AM-SG
AC voltmeter
Voltímetro de CA
Oscilloscope
Osciloscopio
Distortion meter
Metros de distorsión
(B)


(d) DC voltmeter
Voltímetro de CC
10mV
TP1 (L) or R63 (L)
TP2 (R) or R64 (R)

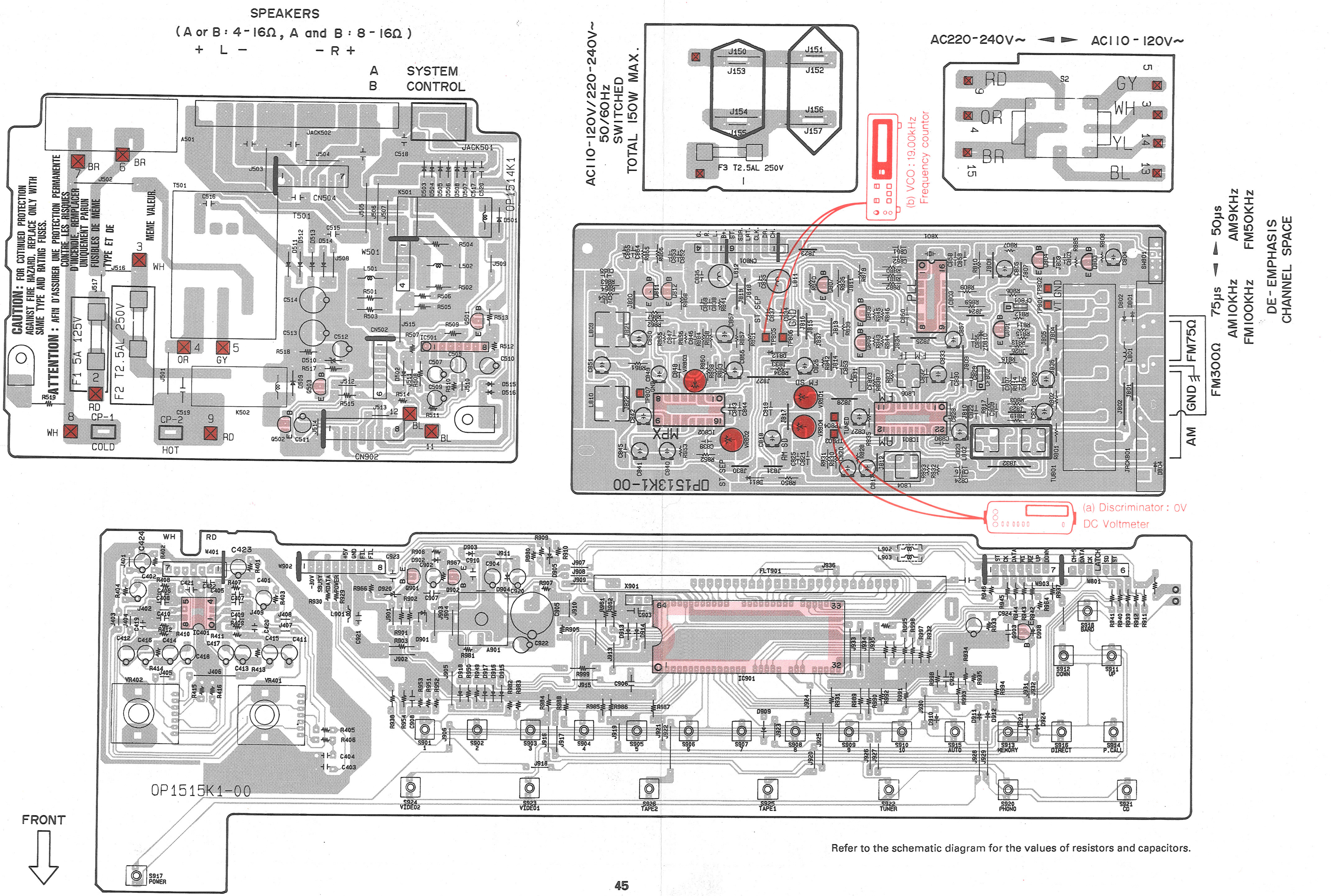
EXCEPT E,T

WIRING DIAGRAM


M TYPE
MAIN TRANS
13 (BLU)
2 (RED)
15 (BRN)
14 (YEL)
8 (WHT)
11 (BLU)
12 (BLU)
T F
VOLTAGE SELECTOR-SW
120V 240V
15 14 13
3
GRY 5
RED 9
ORG 4
AC120V/60Hz
CP1
CP2
12 11 8 4 3 (WHT) 2 9 5
POWER SUPPLY UNIT
WP4123K3
A501
AC110-120V/220-240V
6 7
K, R, P, X TYPE
MAIN TRANS
8 (WHT)
2 (RED)
11 (BLU)
12 (BLU)
12 11 2 8
AC120V/60Hz
K.P.R.ONLY
A501
AC 120V 60Hz
POWER SUPPLY UNIT
WP4123K1(K,R)
WP4123K2(P)
WP4123K4(X)
CN504
CN902
W501
CN502
W103
W107
CN501
W502
W801
CN431
CN401
CN903
MAIN PCB ASS'Y
WP4113K1(K,P,R)
WP4113K2(M)
WP4113K3(X)
PHONO PLAY
CD PLAY
TAPE 1 REC PLAY
TAPE 2 REC PLAY
VIDEO 1 PLAY
VIDEO 2 PLAY
TUNER PCB ASS'Y
WP4125K1 (K,P,R)
WP4125K2(M)
WP4125K3(X)
CN801
SPEAKER-SW H.P UNIT
WP4126K1
W504
FRONT/TONE PCB ASS'Y
WP4127K1(K,P,R)
WP4127K2(M)
WP4127K3(X)
W902
W903
W801
W401
VOLUME UNIT
WP4124K1
(K,R,P,M,X)
W431
W451
BALANCE UNIT
WP4124K1
(K,R,P,M,X)

EXCEPT E,T

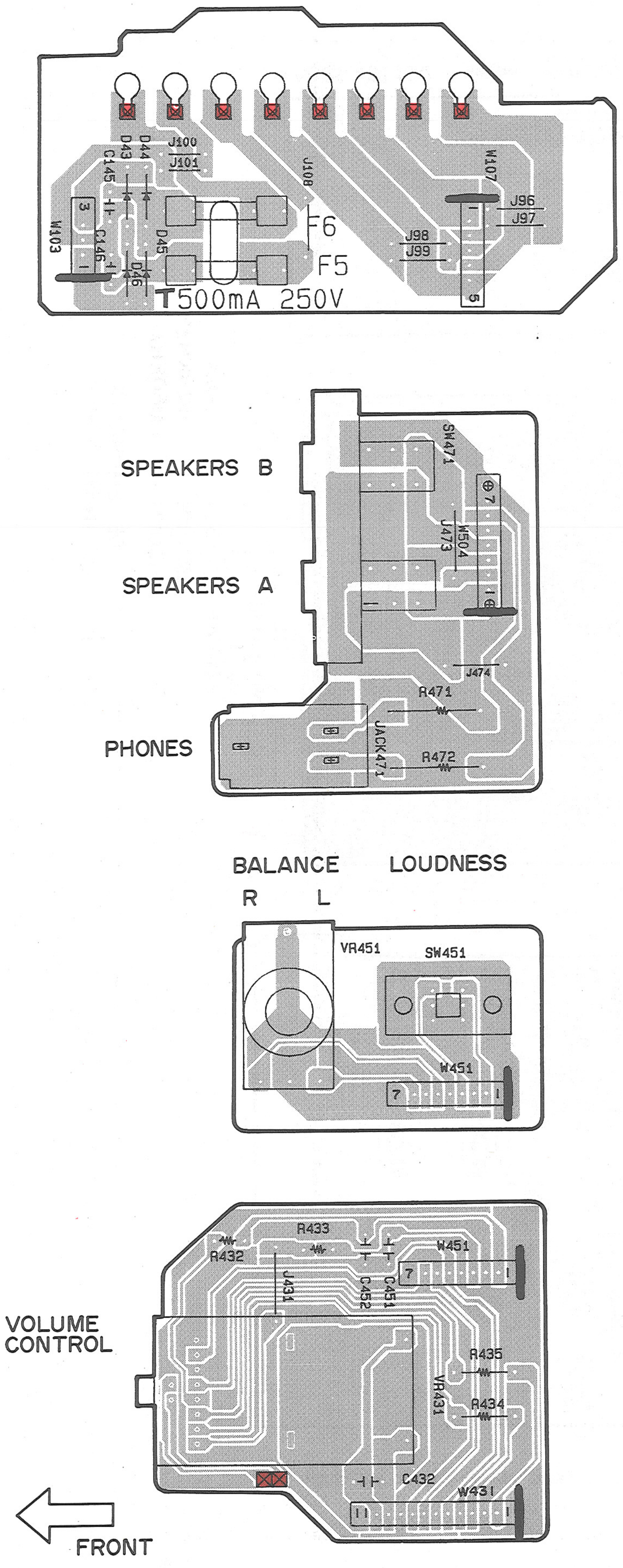
PC BOARD (COMPONENT SIDE VIEW) : KR-A5060

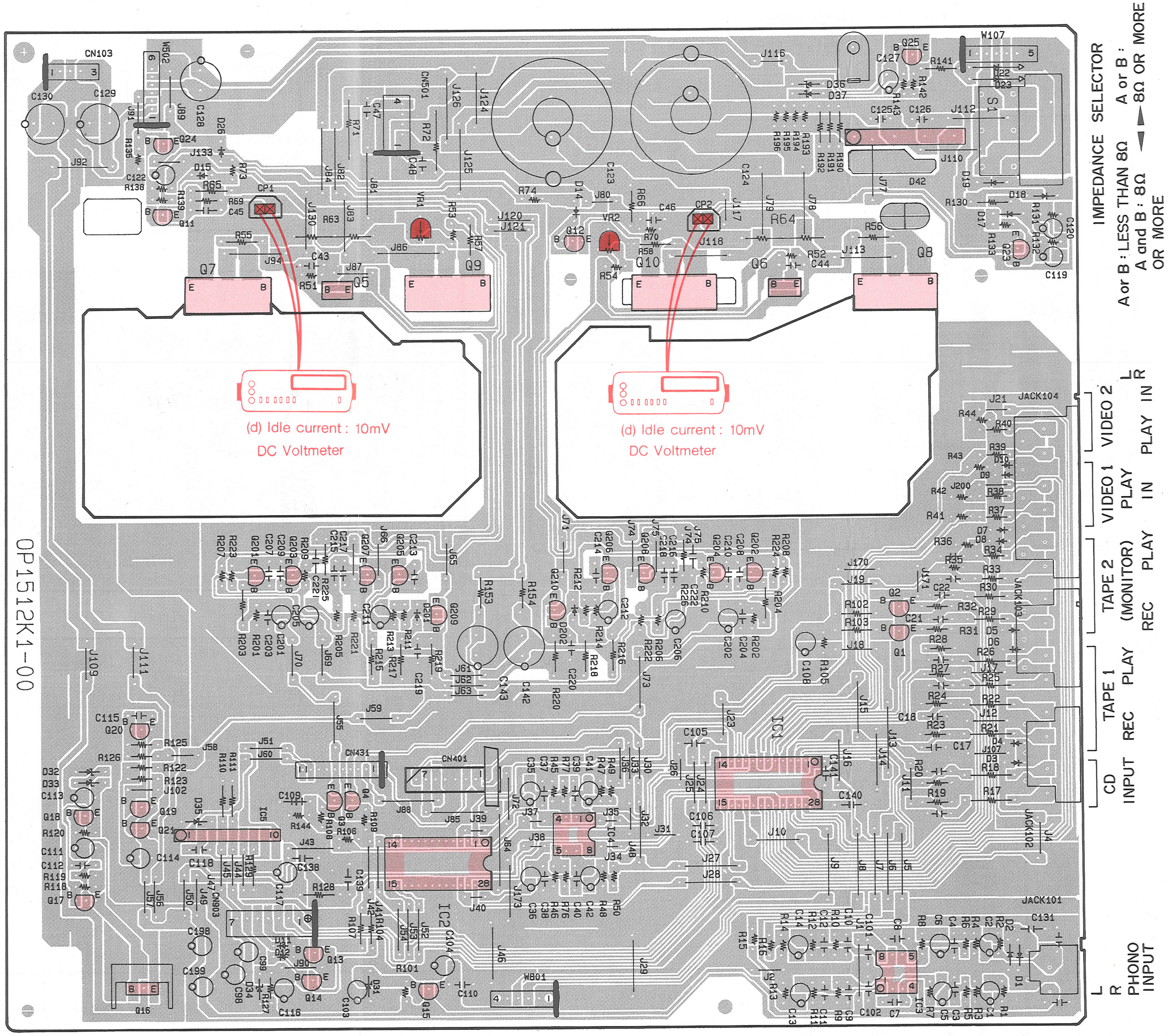

SPEAKERS
(A or B : 4 - 16Ω , A and B : 8 - 16Ω)
+ L -
- R +
A SYSTEM
B CONTROL
CAUTION : FOR COTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATING FUSES.
ATTENTION : AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PARUN FUSIBLES DE MÊME TYPE ET DE MÊME VALEUR.
F1 5A 125V
F2 T2.5AL 250V
CP-1
COLD
CP-2
HOT
BR
WH
OR
GY
RD
BL
T501
JACK502
JACK501
CN504
CN502
CN902
OP1514K1
AC110-120V/220-240V~
50/60Hz
SWITCHED
TOTAL 150W MAX.
J150
J151
J153
J152
J154
J156
J155
J157
F3 T2.5AL 250V
AC220-240V~
AC110-120V~
S2
RD
GY
OR
WH
BR
YL
BL
(b) VCO : 19.00kHz
Frequency countor
OP1513K1-00
MPX
PLL
FM
AM
ST SEP
GND
VT
IC801
IC802
VR801
VR802
VR803
VR804
(a) Discriminator : 0V
DC Voltmeter
FM75Ω
FM300Ω
GND
AM
75μs
50μs
AM10KHz
AM9KHz
FM100KHz
FM50KHz
DE-EMPHASIS
CHANNEL SPACE
FLT901
IC901
X901
VR401
VR402
OP1515K1-00
FRONT
S901 1
S902 2
S903 3
S904 4
S905 5
S906 6
S907 7
S908 8
S909 9
S910 10
S915 AUTO
S913 MEMORY
S916 DIRECT
S914 P.CALL
S912 DOWN
S911 UP
S918 BAND
S924 VIDEO2
S923 VIDEO1
S926 TAPE2
S925 TAPE1
S922 TUNER
S920 PHONO
S921 CD
S917 POWER

Refer to the schematic diagram for the values of resistors and capacitors.

EXCEPT E,T

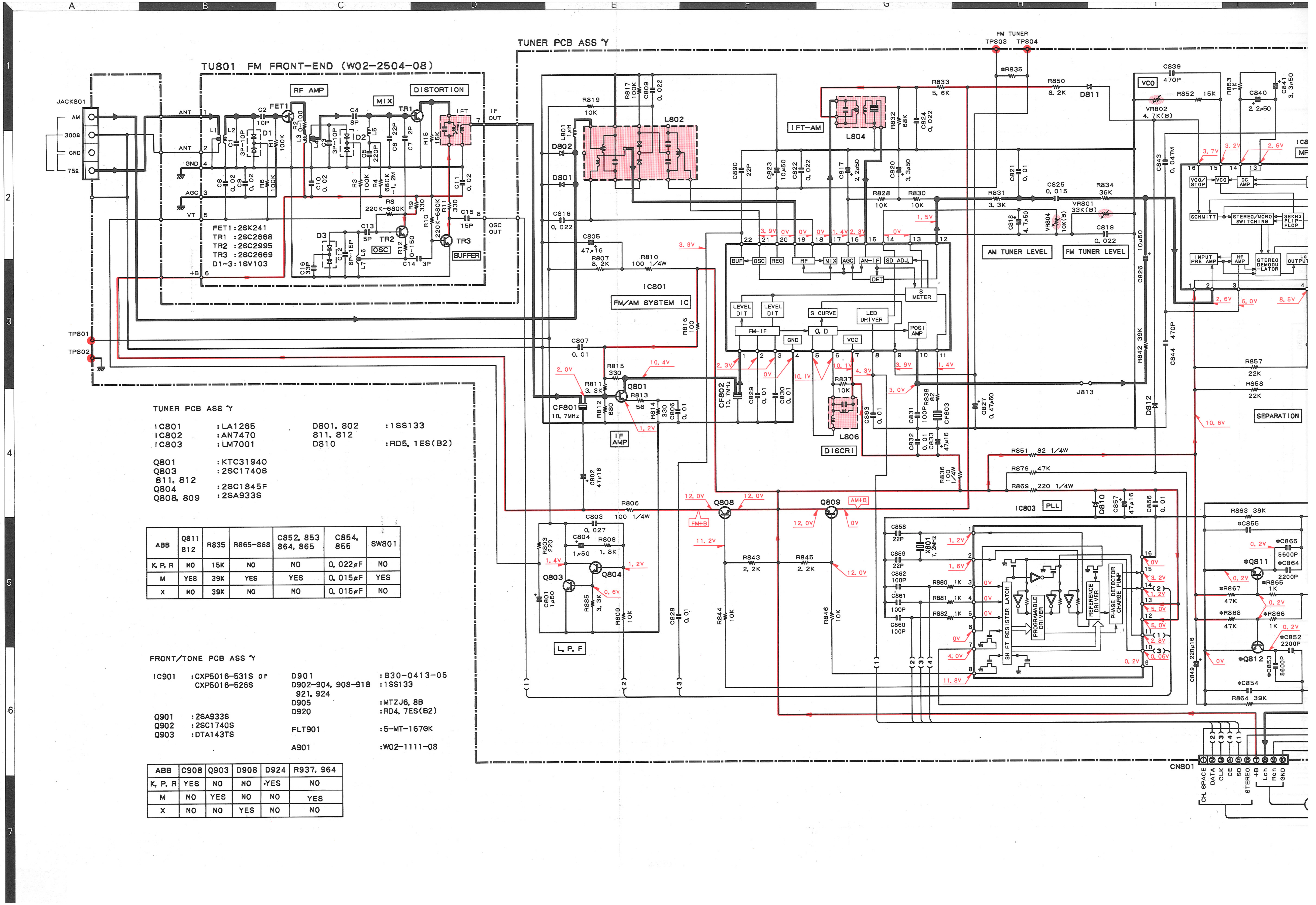
PC BOARD (COMPONENT SIDE VIEW) : KR-A5060


T500mA 250V
F6
F5
W103
SPEAKERS B
SPEAKERS A
PHONES
SW471
J473
W504
J474
R471
R472
JACK471
BALANCE
LOUDNESS
R
L
VR451
SW451
W451
VOLUME
CONTROL
R433
R432
J431
C452
C451
R435
R434
VR431
C432
W431
FRONT


CN103
CP1
CP2
Q7
Q8
Q9
Q10
(d) Idle current : 10mV
DC Voltmeter
(d) Idle current : 10mV
DC Voltmeter
OP1512K1-00
IC1
IC2
W107
S1
IMPEDANCE SELECTOR
A or B : LESS THAN 8Ω
A or B : 8Ω OR MORE
A and B : 8Ω
OR MORE
JACK104
VIDEO 2 PLAY IN
VIDEO 1 PLAY IN
TAPE 2 (MONITOR) PLAY REC
TAPE 1 PLAY REC
CD INPUT
JACK103
JACK102
JACK101
PHONO INPUT
L
R
W801

EXCEPT E,T

Refer to the schematic diagram for the values of resistors and capacitors.


TUNER PCB ASS 'Y
TU801 FM FRONT-END (W02-2504-08)
JACK801
AM
300Ω
GND
75Ω
ANT
AGC
VT
+B
RF AMP
MIX
DISTORTION
IFT
IF OUT
OSC OUT
OSC
BUFFER
FET1:2SK241
TR1 :2SC2668
TR2 :2SC2995
TR3 :2SC2669
D1~3:1SV103
TP801
TP802
FM TUNER
TP803
TP804
IC801
FM/AM SYSTEM IC
IFT-AM
L802
L804
L806
DISCRI
IF AMP
L.P.F
CF801 10.7MHz
CF802 10.7MHz
Q801
Q803
Q804
Q808
Q809
FM+B
AM+B
BUF
OSC
REG
RF
MIX
AGC
AM-IF
SD ADJ.
DET
S METER
LEVEL DIT
S CURVE
LED DRIVER
FM-IF
GND
Q.D
VCC
POSI AMP
AM TUNER LEVEL
FM TUNER LEVEL
VR801 33K(B)
VR802 4.7K(B)
VR804 10K(B)
J813
D810
D811
D812
VCO
VCO/STOP
DC AMP
SCHMITT
STEREO/MONO SWITCHING
38KHz FLIP-FLOP
INPUT PRE AMP
NF AMP
STEREO DEMODU-LATOR
Lc
OUTPUT
SEPARATION
IC803
PLL
X801 7.2MHz
SHIFT RESISTER LATCH
PROGRAMABLE DRIVER
REFERENCE DRIVER
PHASE DETECTOR CHARGE PUMP
Q811
Q812
CN801
CH. SPACE
DATA
CLK
CE
SD
STEREO
+B
Lch
Rch
GND

TUNER PCB ASS 'Y

IC801 :LA1265
IC802 :AN7470
IC803 :LM7001

Q801 :KTC31940
Q803 :2SC1740S
811, 812
Q804 :2SC1845F
Q808, 809 :2SA933S

D801, 802 :1SS133
811, 812
D810 :RD5. 1ES(B2)

ABB	Q811 812	R835	R865~868	C852, 853 864, 865	C854, 855	SW801
K, P, R	NO	15K	NO	NO	0. 022μF	NO
M	YES	39K	YES	YES	0. 015μF	YES
X	NO	39K	NO	NO	0. 015μF	NO

FRONT/TONE PCB ASS 'Y

IC901 :CXP5016-531S or
CXP5016-526S

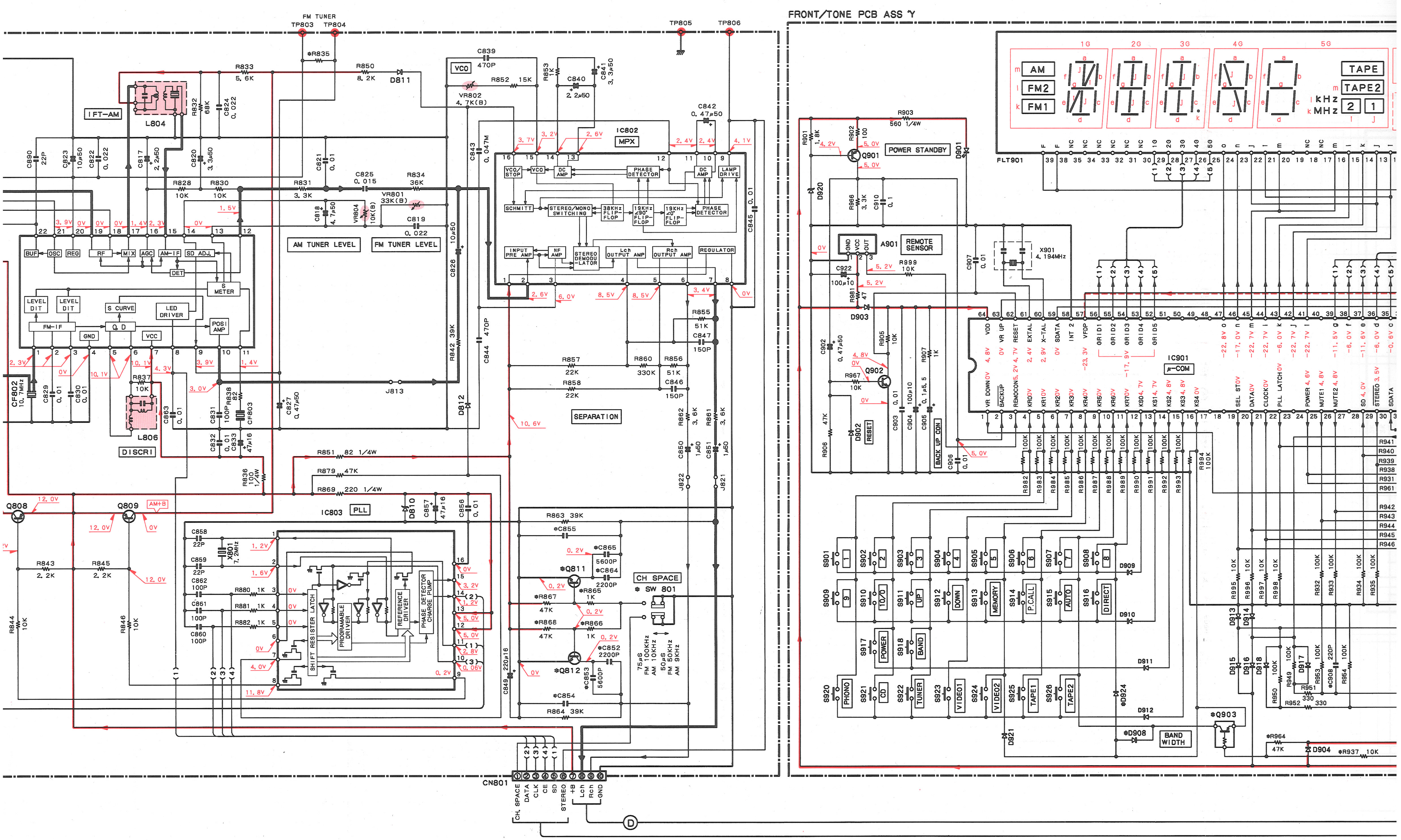
Q901 :2SA933S
Q902 :2SC1740S
Q903 :DTA143TS

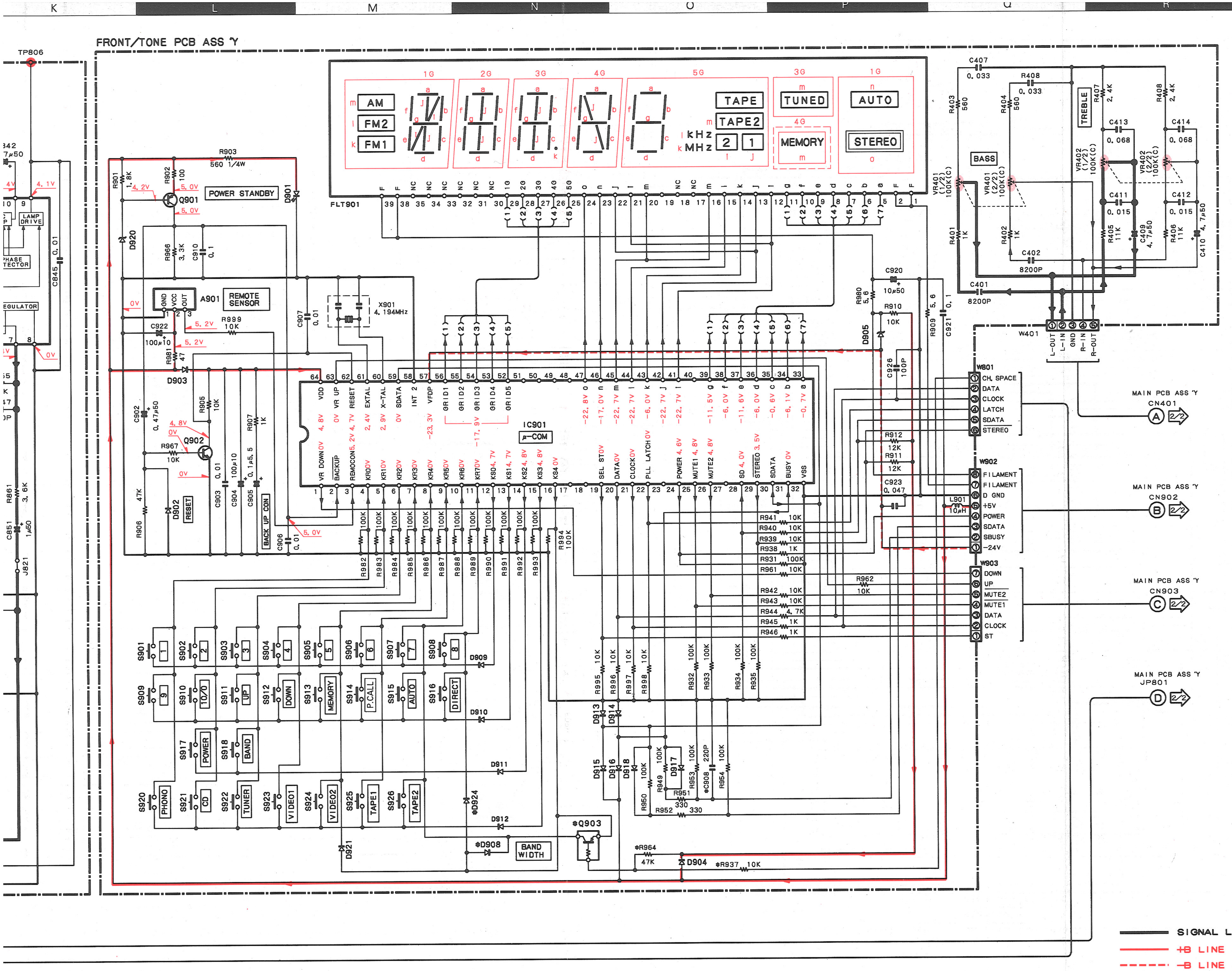
D901 :B30-0413-05
D902~904, 908~918 :1SS133
921, 924
D905 :MTZJ6. 8B
D920 :RD4. 7ES(B2)

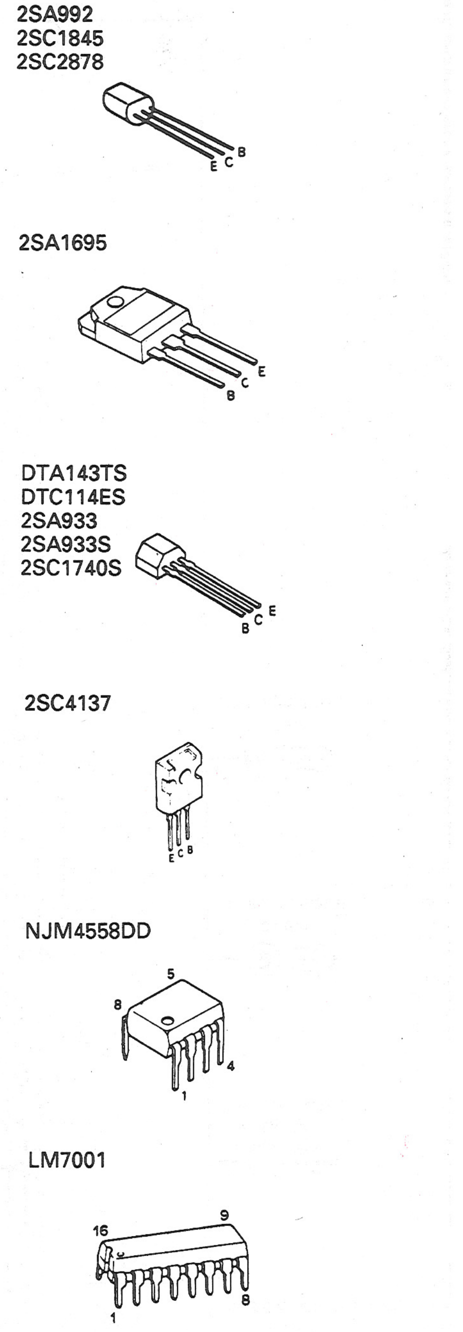
FLT901 :5-MT-167GK

A901 :W02-1111-08

ABB	C908	Q903	D908	D924	R937, 964
K, P, R	YES	NO	NO	•YES	NO
M	NO	YES	NO	NO	YES
X	NO	NO	YES	NO	NO


FM TUNER
TP803
TP804
TP805
TP806
FRONT/TONE PCB ASS 'Y
IFT-AM
L804
R833 5.6K
R850 8.2K
D811
R835
R832 68K
C824 0.022
VCO
C839 470P
R852 15K
VR802 4.7K(B)
R853 1K
C840 2.2μ50
C841 3.3μ50
IC802
MPX
C842 0.47μ50
C890 22P
C823 10μ50
C822 0.022
C817 2.2μ50
C820 3.3μ50
C821 0.01
C843 0.047M
R828 10K
R830 10K
R831 3.3K
C825 0.015
R834 36K
VR801 33K(B)
C819 0.022
C818 4.7μ50
VR804 10K(B)
AM TUNER LEVEL
FM TUNER LEVEL
C826 10μ50
C845 0.01
VCO/STOP
DC AMP
PHASE DETECTOR
LAMP DRIVE
SCHMITT
STEREO/MONO SWITCHING
38KHz FLIP-FLOP
19KHz ∠90° FLIP-FLOP
19KHz ∠0° FLIP-FLOP
INPUT PRE AMP
NF AMP
STEREO DEMODULATOR
Lch OUTPUT AMP
Rch OUTPUT AMP
REGULATOR
BUF
OSC
REG
RF
MIX
AGC
AM-IF
SD ADJ.
DET
S METER
LEVEL DIT
S CURVE
LED DRIVER
FM-IF
Q.D
POSI AMP
GND
VCC
CF802 10.7MHz
C829 0.01
C830 0.01
R837 10K
L806
DISCRI
C863 0.01
C831 100P
R838 82K
CF803
C832 0.01
C833 47μ16
C827 0.47μ50
R842 39K
C844 470P
J813
D812
R855 51K
C847 150P
R857 22K
R860 330K
R856 51K
R858 22K
C846 150P
SEPARATION
R862 3.6K
R861 3.6K
C850 1μ50
C851 1μ50
J822
J821
R851 82 1/4W
R879 47K
R869 220 1/4W
R836 100 1/4W
Q808
Q809
AM+B
IC803
PLL
D810
C857 47μ16
C856 0.01
R843 2.2K
R845 2.2K
R844 10K
R846 10K
C858 22P
X801 7.2MHz
C859 22P
C862 100P
C861 100P
C860 100P
R880 1K
R881 1K
R882 1K
SHIFT RESISTER LATCH
PROGRAMABLE DRIVER
REFERENCE DRIVER
PHASE DETECTOR CHARGE PUMP
R863 39K
C855
C865 5600P
Q811
C864 2200P
R867 47K
R865 1K
R868 47K
R866 1K
C852 2200P
Q812
C853 5600P
C854
R864 39K
C849 220μ16
CH SPACE
SW 801
75μS FM 100KHz AM 10KHz
50μS FM 50KHz AM 9KHz
CN801
CH, SPACE
DATA
CLK
CE
SD
STEREO
+B
Lch
Rch
GND
D
R903 560 1/4W
R901 1.8K
R902 100
Q901
POWER STANDBY
D901
D920
R966 3.3K
C910 0.1
A901
REMOTE SENSOR
GND VCC OUT
C922 100μ10
R999 10K
R981 47
D903
C907 0.01
X901 4.194MHz
FLT901
AM
FM2
FM1
TAPE
TAPE2
kHz
MHz
1G
2G
3G
4G
5G
C902 0.47μ50
R905 10K
R907 1K
Q902
R967 10K
R906 47K
D902
RESET
C903 0.01
C904 100μ10
C905 0.1μ5.5
BACK UP CON
C906 0.01
IC901
μ-COM
VDD
VR UP
RESET
EXTAL
X-TAL
SDATA
INT 2
VFDP
GRID1
GRID2
GRID3
GRID4
GRID5
VR DOWN
BACKUP
REMOCON
KR0
KR1
KR2
KR3
KR4
KR5
KR6
KR7
KS04
KS14
KS24
KS34
KS4
SEL ST
DATA
CLOCK
PLL LATCH
POWER
MUTE1
MUTE2
SD
STEREO
SDATA
R982
R983
R984
R985
R986
R987
R988
R989
R990
R991
R992
R993
R994 100K
R941
R940
R939
R938
R931
R961
R942
R943
R944
R945
R946
S901 1
S902 2
S903 3
S904 4
S905 5
S906 6
S907 7
S908 8
D909
S909 9
S910 10/0
S911 UP
S912 DOWN
S913 MEMORY
S914 P.CALL
S915 AUTO
S916 DIRECT
D910
S917 POWER
S918 BAND
D911
S920 PHONO
S921 CD
S922 TUNER
S923 VIDEO1
S924 VIDEO2
S925 TAPE1
S926 TAPE2
D924
D912
D921
D908
BAND WIDTH
Q903
R964 47K
D904
R937 10K
R995 10K
R996 10K
R997 10K
R998 10K
R932 100K
R933 100K
R934 100K
R935 100K
D913
D914
D915
D916
D918
D917
R949 100K
R953 100K
R950 100K
C908 220P
R954 100K
R951 330
R952 330


K
L
M
N
O
P
Q
R
S
T
FRONT/TONE PCB ASS 'Y
TP806
FLT901
AM
FM2
FM1
TAPE
TAPE2
TUNED
MEMORY
AUTO
STEREO
kHz
MHz
1G
2G
3G
4G
5G
BASS
TREBLE
POWER STANDBY
REMOTE SENSOR
A901
X901 4. 194MHz
IC901
µ-COM
Q901
Q902
D901
D903
D920
BACK UP CON
RESET
VR DOWN
VR UP
BACKUP
REMOCON
SEL STOV
DATAOV
CLOCKOV
PLL LATCH OV
POWER 4. 6V
MUTE1 4. 8V
MUTE2 4. 8V
SD 4. 0V
STEREO 3. 5V
SDATA
BUSY 0V
VSS
VDD
RESET
EXTAL
X-TAL
SDATA
INT 2
VFDP
GRID1
GRID2
GRID3
GRID4
GRID5
W401
L-OUT
L-IN
GND
R-IN
R-OUT
W801
CH. SPACE
DATA
CLOCK
LATCH
SDATA
STEREO
W902
FILAMENT
FILAMENT
D GND
+5V
POWER
SDATA
SBUSY
-24V
W903
DOWN
UP
MUTE2
MUTE1
DATA
CLOCK
ST
MAIN PCB ASS 'Y CN401 Ⓐ 2/2
MAIN PCB ASS 'Y CN902 Ⓑ 2/2
MAIN PCB ASS 'Y CN903 Ⓒ 2/2
MAIN PCB ASS 'Y JP801 Ⓓ 2/2
S901 1
S902 2
S903 3
S904 4
S905 5
S906 6
S907 7
S908 8
S909 9
S910 10/0
S911 UP
S912 DOWN
S913 MEMORY
S914 P.CALL
S915 AUTO
S916 DIRECT
S917 POWER
S918 BAND
S920 PHONO
S921 CD
S922 TUNER
S923 VIDEO1
S924 VIDEO2
S925 TAPE1
S926 TAPE2
Q903
D908
BAND WIDTH
D904
R964 47K
R937 10K


2SA992
2SC1845
2SC2878
E C B
2SA1695
B C E
DTA143TS
DTC114ES
2SA933
2SA933S
2SC1740S
B C E
2SC4137
E C B
NJM4558DD
8
5
4
1
LM7001
16
9
1
8

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

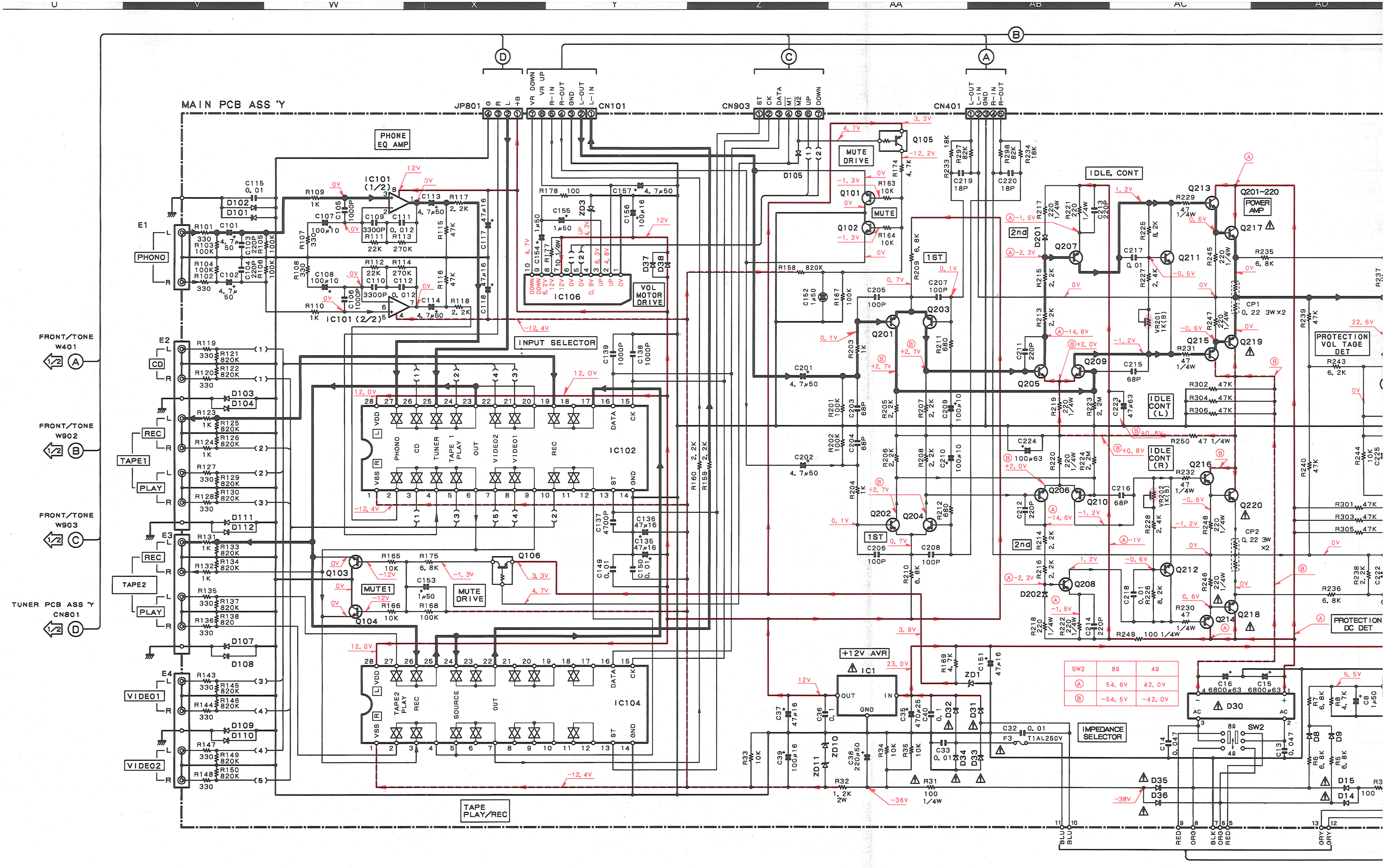
▬	SIGNAL LINE
▬	+B LINE
- - -	-B LINE
▬	GND LINE

1/2 (Except E, T)

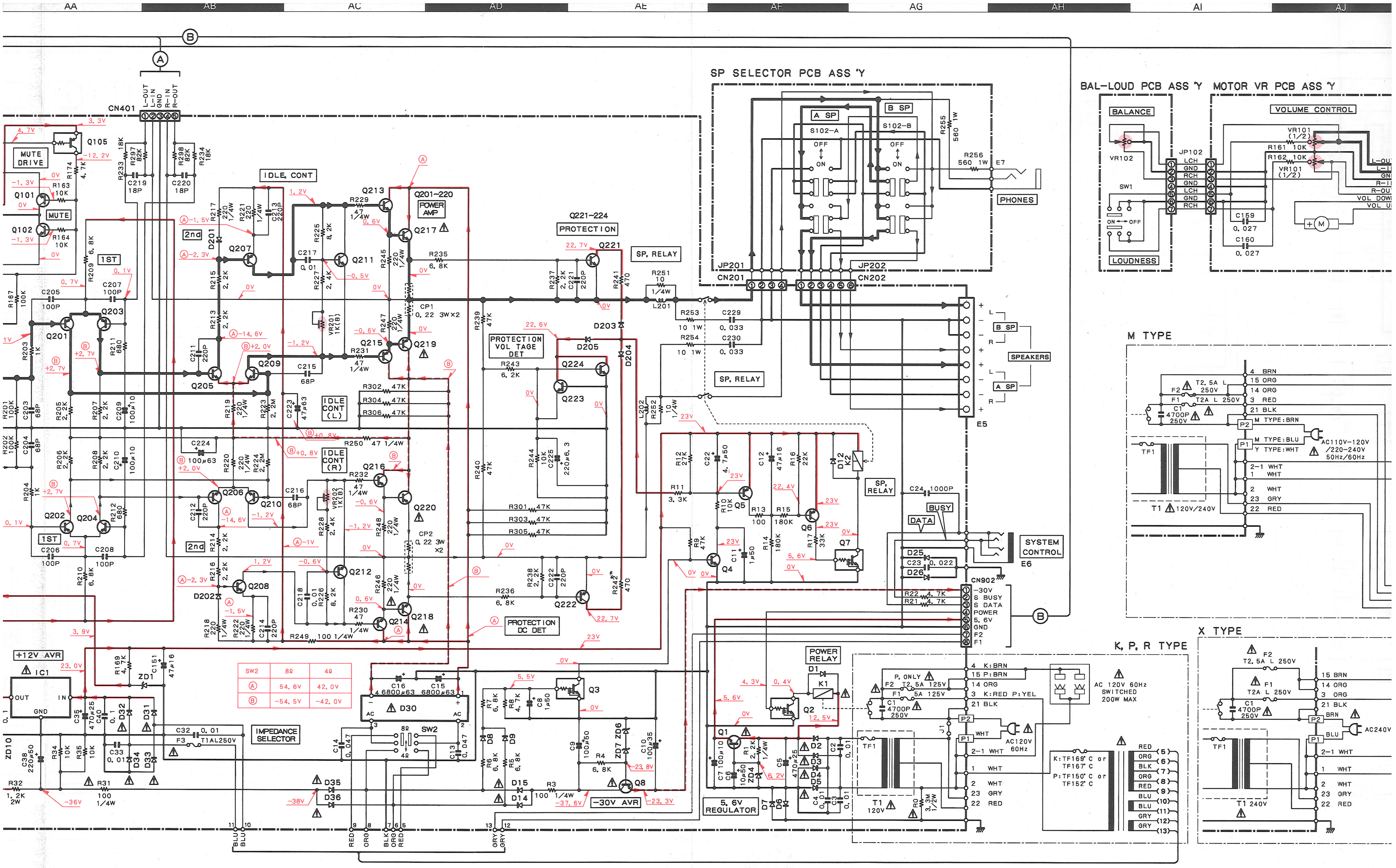
Y05-2880-10

KR-A4060

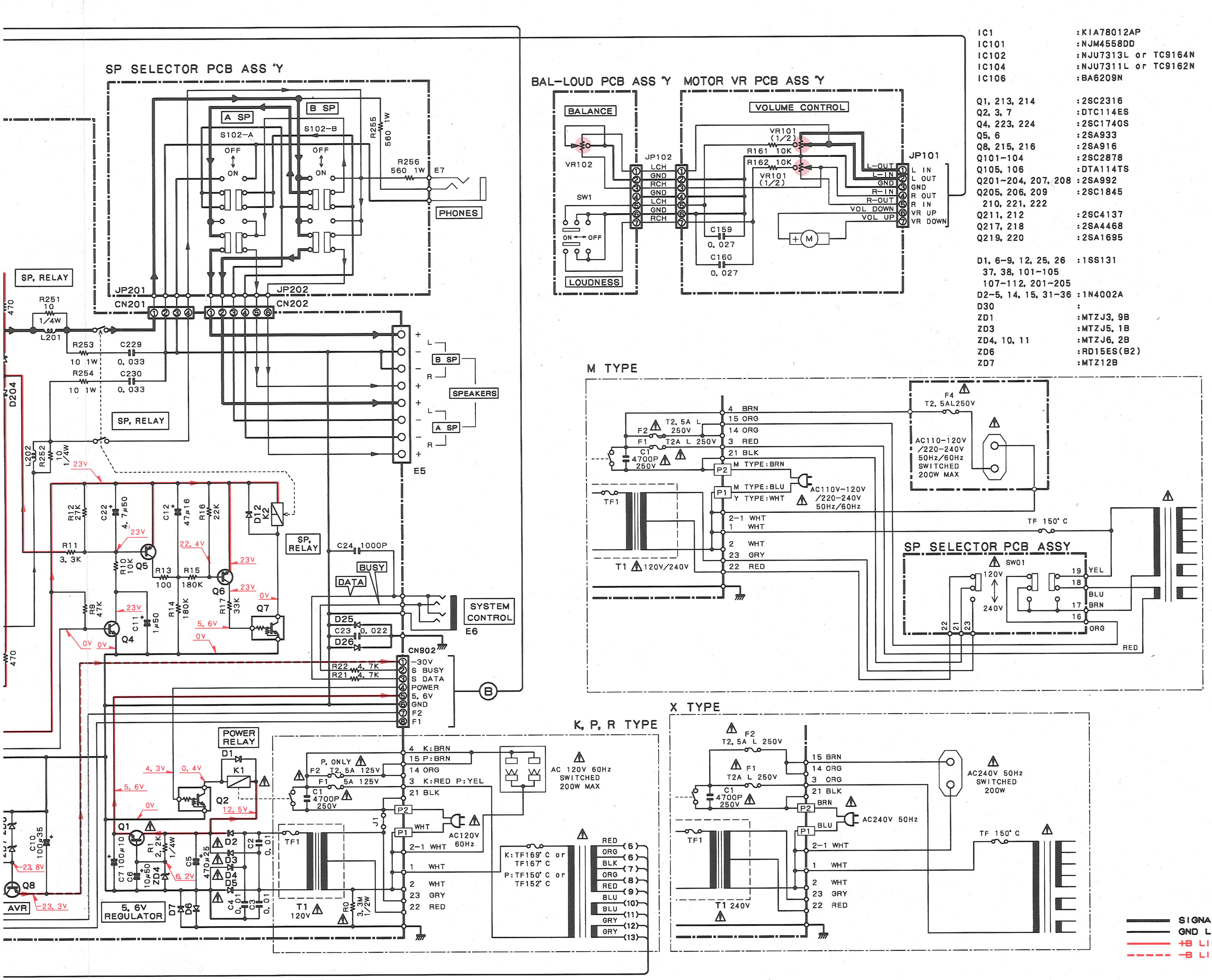
KENWOOD


U
V
W
X
Y
Z
AA
AB
AC
AD
MAIN PCB ASS 'Y
JP801
CN101
CN903
CN401
VR DOWN
VR UP
R-IN
R-OUT
GND
L-OUT
L-IN
ST
CK
DATA
M1
M2
UP
DOWN
L-OUT
L-IN
GND
R-IN
R-OUT
PHONE EQ AMP
IC101 (1/2)
IC101 (2/2)
E1
PHONO
E2
CD
E3
E4
TAPE1
REC
PLAY
TAPE2
VIDEO1
VIDEO2
FRONT/TONE W401
FRONT/TONE W902
FRONT/TONE W903
TUNER PCB ASS 'Y CN801
INPUT SELECTOR
IC102
IC104
IC106
VOL MOTOR DRIVE
MUTE DRIVE
MUTE
MUTE1
TAPE PLAY/REC
Q101
Q102
Q103
Q104
Q105
Q106
D105
IDLE. CONT
IDLE CONT (L)
IDLE CONT (R)
1ST
2nd
Q201
Q202
Q203
Q204
Q205
Q206
Q207
Q208
Q209
Q210
Q211
Q212
Q213
Q214
Q215
Q216
Q217
Q218
Q219
Q220
Q201~220
POWER AMP
CP1 0.22 3W×2
CP2 0.22 3W ×2
PROTECTION VOL TAGE DET
PROTECTION DC DET
+12V AVR
IC1
OUT
IN
GND
F3 T1AL250V
IMPEDANCE SELECTOR
D30
SW2
8Ω
4Ω
C16 6800μ63
C15 6800μ63
BLU
BLU
RED
ORG
BLK
ORG
RED
GRY
GRY
12V
-12.4V
12.0V
3.3V
4.7V
-12.2V
-36V
-38V
23.0V
3.9V
5.5V
22.6V

SW2	8Ω	4Ω
Ⓐ	54.6V	42.0V
Ⓑ	-54.5V	-42.0V

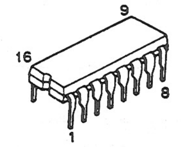

AA
AB
AC
AD
AE
AF
AG
AH
AI
AJ
CN401
L-OUT
L-IN
GND
R-IN
R-OUT
MUTE DRIVE
Q105
Q101
Q102
MUTE
IDLE. CONT
Q201~220
POWER AMP
Q213
Q217
Q207
Q211
2nd
1ST
Q201
Q203
Q205
Q209
Q215
Q219
VR201 1K(B)
VR202 1K(B)
IDLE CONT (L)
IDLE CONT (R)
Q202
Q204
Q206
Q210
Q216
Q220
Q208
Q212
Q214
Q218
D201
D202
CP1 0.22 3W×2
CP2 0.22 3W ×2
Q221~224
PROTECTION
Q221
Q222
Q223
Q224
PROTECTION VOL TAGE DET
PROTECTION DC DET
D203
D204
D205
SP. RELAY
SP SELECTOR PCB ASS'Y
A SP
B SP
S102-A
S102-B
OFF
ON
R255 560 1W
R256 560 1W
E7
PHONES
JP201
JP202
CN201
CN202
L201
R251 10 1/4W
R253 10 1W
R254 10 1W
C229 0.033
C230 0.033
SPEAKERS
E5
SP. RELAY
BUSY
DATA
SYSTEM CONTROL
E6
CN902
-30V
S BUSY
S DATA
POWER
5.6V
GND
F2
F1
BAL-LOUD PCB ASS'Y
MOTOR VR PCB ASS'Y
BALANCE
VR102
SW1
ON ↔ OFF
LOUDNESS
JP102
LCH
GND
RCH
VOLUME CONTROL
VR101 (1/2)
R161 10K
R162 10K
C159 0.027
C160 0.027
VOL DOWN
VOL UP
M TYPE
X TYPE
K, P, R TYPE
T1 120V/240V
T1 240V
TF1
+12V AVR
IC1
OUT
IN
GND
ZD1
D30
C16 6800μ63
C15 6800μ63
SW2
8Ω
4Ω
IMPEDANCE SELECTOR
POWER RELAY
K1
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
-30V AVR
5.6V REGULATOR
AC 120V 60Hz SWITCHED 200W MAX
K:TF169'C or TF167'C
P:TF150'C or TF152'C
AC110V~120V /220~240V 50Hz/60Hz
AC240V
BLU
BLU
RED
ORG
BLK
ORG
RED
GRY
GRY

SW2	8Ω	4Ω
Ⓐ	54.6V	42.0V
Ⓑ	-54.5V	-42.0V

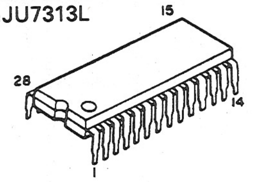

SP SELECTOR PCB ASS 'Y
A SP
B SP
S102-A
S102-B
OFF
ON
R255 560 1W
R256 560 1W
E7
PHONES
JP201
CN201
JP202
CN202
SP, RELAY
R251 10 1/4W
L201
R253 10 1W
R254 10 1W
C229 0.033
C230 0.033
L202
R252 10 1/4W
470
D204
B SP
A SP
SPEAKERS
E5
R12 27K
C22 4.7µ50
C12 47µ16
R16 22K
D12
K2
SP, RELAY
R11 3.3K
R10 10K
Q5
R13 100
R15 180K
Q6
R9 47K
Q4
C11 1µ50
R14 180K
R17 33K
Q7
23V
22.4V
5.6V
0V
C24 1000P
BUSY
DATA
D25
C23 0.022
D26
SYSTEM CONTROL
E6
CN902
R22 4.7K
R21 4.7K
-30V
S BUSY
S DATA
POWER
5.6V
GND
F2
F1
B
POWER RELAY
D1
K1
Q2
Q1
R1 2.2K 1/4W
D2
D3
D4
D5
C2 0.01
C3 0.01
C4 0.01
C5 470µ25
C6 10µ50
C7 100µ10
ZD4
6.2V
12.5V
4.3V
0.4V
Q8
C10 100µ35
23.8V
23.3V
AVR
5.6V REGULATOR
D6
D7
T1 120V
R0 3.3M 1/2W
TF1
K, P, R TYPE
P. ONLY
F2 T2.5A 125V
F1 5A 125V
C1 4700P 250V
4 K:BRN
15 P:BRN
14 ORG
3 K:RED P:YEL
21 BLK
P2
P1
J1
WHT
AC120V 60Hz
2-1 WHT
1 WHT
2 WHT
23 GRY
22 RED
AC 120V 60Hz SWITCHED 200W MAX
K:TF169°C or TF167°C
P:TF150°C or TF152°C
RED ORG BLK ORG RED BLU BLU GRY GRY
(5) (6) (7) (8) (9) (10) (11) (12) (13)
BAL-LOUD PCB ASS 'Y
BALANCE
VR102
SW1
ON OFF
LOUDNESS
JP102
LCH GND RCH GND LCH GND RCH
MOTOR VR PCB ASS 'Y
VOLUME CONTROL
VR101 (1/2)
R161 10K
R162 10K
C159 0.027
C160 0.027
M
JP101
L-OUT L-IN GND R-IN R-OUT VOL DOWN VOL UP
L IN L OUT GND R OUT R IN VR UP VR DOWN
M TYPE
F4 T2.5AL250V
AC110-120V /220-240V 50Hz/60Hz SWITCHED 200W MAX
F2 T2.5A L 250V
F1 T2A L 250V
C1 4700P 250V
4 BRN
15 ORG
14 ORG
3 RED
21 BLK
M TYPE:BRN
M TYPE:BLU
Y TYPE:WHT
AC110V-120V /220-240V 50Hz/60Hz
2-1 WHT
1 WHT
2 WHT
23 GRY
22 RED
T1 120V/240V
TF 150°C
SP SELECTOR PCB ASSY
SW01
120V
240V
19 YEL
18
BLU
17 BRN
16
ORG
RED
X TYPE
F2 T2.5A L 250V
F1 T2A L 250V
C1 4700P 250V
15 BRN
14 ORG
3 ORG
21 BLK
BRN
BLU
AC240V 50Hz
AC240V 50Hz SWITCHED 200W
2-1 WHT
1 WHT
2 WHT
23 GRY
22 RED
T1 240V
TF 150°C

IC1	:KIA78012AP
IC101	:NJM4558DD
IC102	:NJU7313L or TC9164N
IC104	:NJU7311L or TC9162N
IC106	:BA6209N
Q1, 213, 214	:2SC2316
Q2, 3, 7	:DTC114ES
Q4, 223, 224	:2SC1740S
Q5, 6	:2SA933
Q8, 215, 216	:2SA916
Q101~104	:2SC2878
Q105, 106	:DTA114TS
Q201~204, 207, 208	:2SA992
Q205, 206, 209 210, 221, 222	:2SC1845
Q211, 212	:2SC4137
Q217, 218	:2SA4468
Q219, 220	:2SA1695
D1, 6~9, 12, 25, 26 37, 38, 101~105 107~112, 201~205	:1SS131
D2~5, 14, 15, 31~36	:1N4002A
D30	:
ZD1	:MTZJ3.9B
ZD3	:MTZJ5.1B
ZD4, 10, 11	:MTZJ6.2B
ZD6	:RD15ES(B2)
ZD7	:MTZ12B

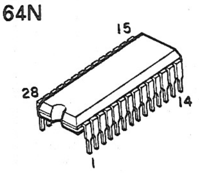
AN7470



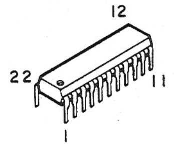
NJU7311L
NJU7313L



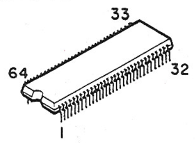
TC9162N
TC9164N



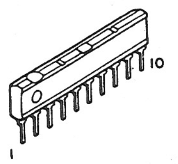
LA1265



CXP5016-526S
CXP5016-531S



BA6209N



- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

━━ SIGNAL LINE
━━ GND LINE
━━ +B LINE
- - - -B LINE

2/2 (Except E, T)

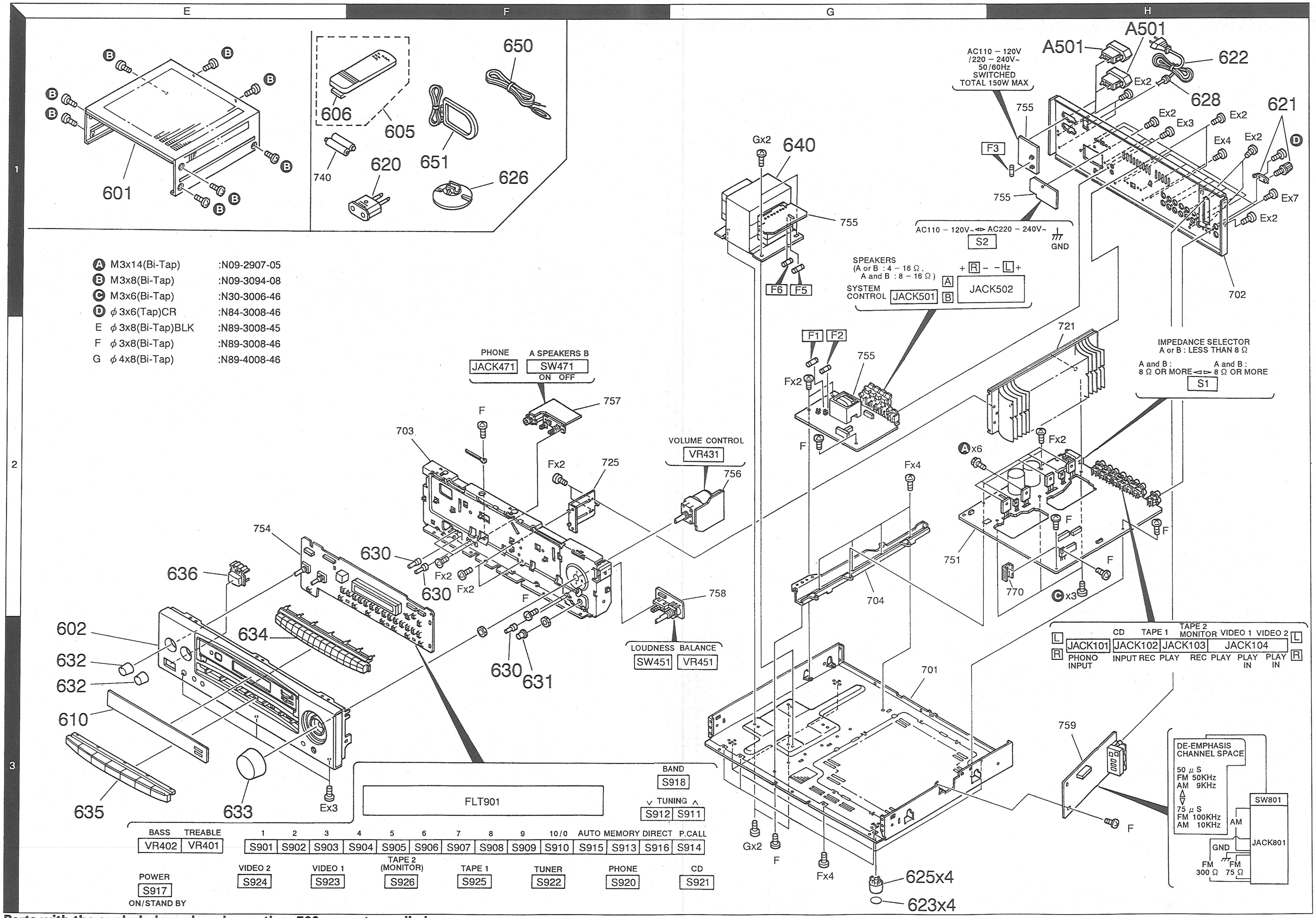
Y05-2880-10

KR-A4060

KENWOOD

KR-A5060 KR-A5060

EXPLODED VIEW (UNIT)



Ⓐ	M3x14(Bi-Tap)	:N09-2907-05
Ⓑ	M3x8(Bi-Tap)	:N09-3094-08
Ⓒ	M3x6(Bi-Tap)	:N30-3006-46
Ⓓ	ϕ3x6(Tap)CR	:N84-3008-46
E	ϕ3x8(Bi-Tap)BLK	:N89-3008-45
F	ϕ3x8(Bi-Tap)	:N89-3008-46
G	ϕ4x8(Bi-Tap)	:N89-4008-46

E
F
G
H
1
2
3
Ⓑ
601
606
605
650
651
620
626
740
Gx2
640
755
F6
F5
A501
A501
622
Ex2
628
621
Ⓓ
Ex3
Ex4
Ex7
AC110 – 120V /220 – 240V~ 50/60Hz SWITCHED TOTAL 150W MAX
F3
AC110 – 120V~◁▷AC220 – 240V~
S2
GND
SPEAKERS (A or B : 4 – 16 Ω, A and B : 8 – 16 Ω)
+ R – – L +
A
B
JACK502
SYSTEM CONTROL
JACK501
702
721
F1
F2
Fx2
IMPEDANCE SELECTOR
A or B : LESS THAN 8 Ω
A and B : 8 Ω OR MORE◁▷A and B : 8 Ω OR MORE
S1
PHONE
JACK471
A SPEAKERS B
SW471
ON OFF
757
703
725
VOLUME CONTROL
VR431
756
Ⓐx6
Fx4
751
770
Ⓒx3
704
754
630
636
758
LOUDNESS BALANCE
SW451 VR451
602
634
632
632
610
635
633
631
Ex3
701
CD TAPE 1 TAPE 2 MONITOR VIDEO 1 VIDEO 2
L
JACK101 JACK102 JACK103 JACK104
R
PHONO INPUT
INPUT REC PLAY REC PLAY PLAY IN PLAY IN
759
DE-EMPHASIS CHANNEL SPACE
50 μS FM 50KHz AM 9KHz
75 μS FM 100KHz AM 10KHz
SW801
AM
JACK801
GND
FM 300 Ω
FM 75 Ω
FLT901
BAND
S918
TUNING
S912 S911
BASS TREABLE
VR402 VR401
1 2 3 4 5 6 7 8 9 10/0 AUTO MEMORY DIRECT P.CALL
S901 S902 S903 S904 S905 S906 S907 S908 S909 S910 S915 S913 S916 S914
POWER
S917
ON/STAND BY
VIDEO 2
S924
VIDEO 1
S923
TAPE 2 (MONITOR)
S926
TAPE 1
S925
TUNER
S922
PHONE
S920
CD
S921
Gx2
F
Fx4
625x4
623x4

Parts with the exploded numbers larger than 700 are not supplied.

EXCEPT E,T

KR-A5060

PARTS LIST

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①

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
KR-A5060						
601	1E		A01-3060-08	METALLIC CABINET	MX	
601	1E		A01-3150-08	METALLIC CABINET	KPR	
602	3E	*	A60-0607-08	FRONT PANEL		
605	1F	*	A70-0985-08	REMOTE CONTROL ASSY		
606	1E		A09-0170-08	BATTERY COVER		
610	3E	*	B10-2040-08	FRONT GLASS		
-			B46-0092-23	WARRNTY CARD	K	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-23	WARRANTY CARD	P	
-		*	B60-1577-08	INSTRUCTION MANUAL (ENGLISH)	KXR	
-		*	B60-1578-08	INSTRUCTION MANUAL (ENG,FRE)	P	
-		*	B60-1579-08	INSTRUCTION MANUAL (ENG,CHI)	M	
-		*	B60-1580-08	INSTRUCTION MANUAL (ENGLISH)	ET	
-		*	B60-1581-08	INSTRUCTION MANUAL (FR,GU,NU)	E	
-		*	B60-1582-08	INSTRUCTION MANUAL (SPA,ITA)	E	
-		*	B60-1619-08	INSTRUCTION MANUAL (SPANISH)	MR	
⚠ 620	1F		E03-0115-05	AC PLUG ADAPTER	M	
621	1H		E21-0023-08	GND TERMINAL		
⚠ 622	1H		E30-0459-05	AC POWER CORD	M	
⚠ 622	1H		E30-0974-05	AC POWER CORD	KPR	
⚠ 622	1H		E30-1341-05	AC POWER CORD	X	
⚠ A501	1H		E03-0055-05	AC OUTLET	M	
⚠ A501	1H		E03-0144-08	AC OUTLET	KPR	
623	3G		G13-0267-08	CUSHION FOOT		
		*	H50-1025-08	ITEM CATONBOX	KPXR	
		*	H50-1026-08	ITEM CATONBOX	M	
-			H10-5574-08	POLYSTYRENE FOAMED FIXTURE		
-			H25-0078-04	PROTECTION BAG (ACCESSORY)		
-			H25-0647-08	PROTECTION BAG (MANUAL)		
-			H25-1529-08	PROTECTION BAG (UNIT)		
625	3G		J02-1107-08	FOOT		
626	1F		J19-2815-04	ANTENNA HOLDER		
⚠ 628	1H		J42-0198-08	AC CORD BUSHING		
630	2F,3F		K27-2166-08	KNOB LOUDNESS,SPEAKERS		
631	3F		K29-4444-08	KNOB BALANCE		
632	3E		K29-5952-08	KNOB BASS,TREBLE		
633	3E		K29-5953-08	KNOB VOLUME		
634	3E		K29-5954-08	KNOB PRESET (10KEY)		
635	3E		K29-5955-08	KNOB FUNCTION		
636	2E		K29-5956-08	KNOB POWER		
⚠ 640	1G	*	L07-0971-08	TRANCEFORMER	KPR	
⚠ 640	1G	*	L07-0972-08	TRANCEFORMER	M	
⚠ 640	1G	*	L07-0973-08	TRANCEFORMER	X	
A	2G		N09-2907-05	BINDING HEAD TAPTITE SCREW		
B	1E	*	N09-3094-08	BINDING HEAD TAPTITE SCREW		
C	2H		N30-3006-46	SCREW		
D	1H		N84-3008-46	TAPTITE SCREW		
E	3E,1H		N89-3008-45	BINDING HEAD TAPTITE SCREW		
F	2F,2H		N89-3008-46	BINDING HEAD TAPTITE SCREW		

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②

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G	1G,3G		N89-4008-46	BINDING HEAD TAPTITE SCREW		
650	1F		T90-0182-05	T TYPE ANTENNA		
651	1F		T90-0184-08	LOOP ANTENNA		
ELECTRIC PARTS						
D901			B30-0413-05	LED (LTL4213(RED)POWER)		
C1 ,2			CE04KW1H100M	ELECTRO 10UF 50WV		
C3 ,4			CC45CH1H221J	CERAMIC 220PF J		
C5 ,6			CE04KW1A101M	ELECTRO 100UF 10WV		
C7 ,8			CK45CH1H102J	CERAMIC 1000PF J		
C9 ,10			CQ92FM1H123J	MYLAR 0.012UF J		
C11 ,12			CQ92FM1H332J	MYLAR 3300PF J		
C13 ,14			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C17 ,18			CC45CH1H221J	CERAMIC 220PF J		
C21 ,22			CC45CH1H221J	CERAMIC 220PF J		
C31 -36			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C37 -40			CC45SL1H101J	CERAMIC 100PF J		
C41 ,42			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C43 -46			CC45SL1H103K	CERAMIC 0.010UF K		
C47 ,48			CQ92FM1H393J	MYLAR 0.039UF J		
C98 ,99			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C101,102			CC45SL1H103K	CERAMIC 0.010UF K		
C103			CE04KW1C470M	ELECTRO 47UF 16WV		
C104			CE04KW1H100M	ELECTRO 10UF 50WV		
C105			CK45CH1H102J	CERAMIC 1000PH J		
C106,107			CC45SL1H331K	CERAMIC 330PF K		
C108			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C110			CC45SL1H103K	CERAMIC 0.010UF K		
C111			CE04KW1H220M	ELECTRO 22UF 50WV		
C112			CK45CH1H152J	CERAMIC 1500PF J		
C113			CE04KW1C470M	ELECTRO 47UF 16WV		
C114			CE04KW1H220M	ELECTRO 22UF 50WV		
C115			CK45CH1H102J	CERAMIC 1000PF J		
C116			CE04KW1A101M	ELECTRO 100UF 10WV		
C117			CE04KW1C470M	ELECTRO 47UF 16WV		
C118			CK45FF1H104J	CERAMIC 0.10UF J		
C119,120			CE04KW2A2R2M	ELECTRO 2.2UF 100WV		
C121			CE04KW1H100M	ELECTRO 10UF 50WV		
C122			CE04KW2A100M	ELECTRO 10UF 100WV		
C123,124		*	C90-3565-08	ELECTRO 6800UF 71WV		
C125,126			CC45FSL2H103Z	CERAMIC 0.010UF Z		
C127			CE04KW1J470M	ELECTRO 47UF 63WV		
C128-130			CE04KW1V471M	ELECTRO 470UF 35WV		
C131			CK45SL1H103K	CERAMIC 0.010UF K		
C138-141			CC45SL1H103K	CERAMIC 0.010UF K		
C142,143			CE04KW2A470M	ELECTRO 47UF 100WV		
C145,146			CC45FSL2H103Z	CERAMIC 0.010UF Z		
C198,199			CE04KW1H220M	ELECTRO 22UF 50WV		
C201,202			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C203,204			CC45CH1H101J	CERAMIC 100PF J		
C205,206			CE04KW1A101M	ELECTRO 100UF 10WV		
C207-210			CC45CH1H101J	CERAMIC 100PF J		
C211,212			CE04KW2A010M	ELECTRO 1.0UF 100WV		
C213,214			CC45SL1H330J	CERAMIC 33PF J		

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KR-A5060

PARTS LIST

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③

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C215,216			CC45CH1H8R2J	CERAMIC 8.2PF J		
C217,218			CC45CH1H330J	CERAMIC 33PF J		
C219,220			CC45CH1H221J	CERAMIC 220PF J		
C401,402			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C403,404			CQ92FM1H473J	MYLAR 0.047UF J		
C405,406			CC45CH1H221J	CERAMIC 220PF J		
C407-410			CC45SL1H470J	CERAMIC 47PF J		
C411-414			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C415-418			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C419,420			CQ92FM1H472J	MYLAR 4700PF J		
C421,422			CK45F1H103M	CERAMIC 0.010UF M		
C423,424			CE04KW1C470M	ELECTRO 47UF 16WV		
C432			CC45SL1H104J	CERAMIC 0.10UF J		
C451,452			CQ92FM1H273J	MYLAR 0.027UF J		
C507			CE04KW1C220M	ELECTRO 22UF 16WV		
C508			CE04KW1C220M	ELECTRO 22UF 16WV		
C509			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C510,511			CE04KW1C330M	ELECTRO 33UF 16WV		
C512			CE04KW1H100M	ELECTRO 10UF 50WV		
C513,514			CE04KW1E221M	ELECTRO 220UF 25WV		
C515,516			CK45F1H103M	CERAMIC 0.010UF M		
C518			CK45F1H103M	CERAMIC 0.010UF M		
C519			KHR-QM4726M6	CERAMIC 4700PF AC250V		
C520			CK45CH1H102J	CERAMIC 1000PF J		
C801			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C802			CE04KW1C470M	ELECTRO 47UF 16WV		
C803			CQ92FM1H273J	MYLAR 0.027UF J		
C804			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C805			CE04KW1C470M	ELECTRO 47UF 16WV		
C806,807			CK45F1H103M	CERAMIC 0.010UF M		
C809			CK45FF1H223Z	CERAMIC 0.022UF Z		
C816			CK45FF1H223Z	CERAMIC 0.022UF Z		
C817			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C818			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C819			CK45FF1H223Z	CERAMIC 0.022UF Z		
C820			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C821			CK45F1H103M	CERAMIC 0.010UF M		
C822			CK45FF1H223Z	CERAMIC 0.022UF Z		
C823			CE04KW1H100M	ELECTRO 10UF 50WV		
C824			CK45FF1H223Z	CERAMIC 0.022UF Z		
C825			CQ92FM1H153J	MYLAR 0.015UF J		
C826			CE04KW1H100M	ELECTRO 10UF 50WV		
C827			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C828-830			CK45F1H103M	CERAMIC 0.010UF M		
C831			CC45CH1H101J	CERAMIC 100PF J		
C832			CK45F1H103M	CERAMIC 0.010UF M		
C833			CE04KW1C470M	ELECTRO 47UF 16WV		
C839			CQ09FS1H471J	POLYSTY 470PF J		
C840			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C841			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C842			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C843			CQ92FM1H473J	MYLAR 0.047UF J		
C844			CK45FB1H471K	CERAMIC 470PF K		
C845			CK45F1H103M	CERAMIC 0.010UF M		
C846,847			CC45SL1H151K	CERAMIC 150PF K		

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④

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C849			CE04KW1C221M	ELECTRO 220UF 16WV		
C850,851			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C852			CQ92FM1H222J	MYLAR 2200PF J	M	
C853			CQ92FM1H562J	MYLAR 5600PF J	M	
C854,855			CQ92FM1H153J	MYLAR 0.015UF J	MX	
C854,855			CQ92FM1H223J	MYLAR 0.022UF J	KPR	
C856			CK45F1H103M	CERAMIC 0.010UF M		
C857			CE04KW1C470M	ELECTRO 47UF 16WV		
C858,859			CC45CH1H220J	CERAMIC 22PF J		
C860-862			CC45CH1H101J	CERAMIC 100PF J		
C863			CK45F1H103M	CERAMIC 0.010UF M		
C864			CQ92FM1H222J	MYLAR 2200PF J	M	
C865			CQ92FM1H562J	MYLAR 5600PF J	M	
C890			CC45CH1H220J	CERAMIC 22PF J		
C902			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C903			CK45F1H103M	CERAMIC 0.010UF M		
C904			CE04KW1A101M	ELECTRO 100UF 10WV		
C905			C90-1827-05	BACKUP 0.1UF 5.5WV		
C906,907			CK45F1H103M	CERAMIC 0.010UF M		
C908			CC45CH1H221J	CERAMIC 220PF J	KPR	
C909			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C910			CK45FF1H104Z	CERAMIC 0.10UF Z		
C920			CE04KW1H100M	ELECTRO 10UF 50WV		
C921			CK45FF1H104Z	CERAMIC 0.10UF Z		
C922			CE04KW1A101M	ELECTRO 100UF 10WV		
C923			CK45SL1H473K	CERAMIC 0.047UF K		
C925			CC45SL1H223K	CERAMIC 0.022UF K		
⚠ A501	1D		E03-0144-08	AC OUTLET	KPR	
JACK101			E70-0035-08	TERMINAL BOARD PHONO		
JACK102			E70-0036-08	TERMINAL BOARD CD,TAPE1 REC		
JACK103			E70-0036-08	TERMINAL BOARD TAPE1 PLAY,TAPE2		
JACK104		*	E63-0118-08	TERMINAL BOARD TAPE2, VIDEO1,2		
JACK471			E11-0263-08	PHONE JACK HEAD PHONE		
JACK501			E11-0188-05	PHONE JACK SYNCHRO		
JACK502			E70-0004-08	TERMINAL BOARD SPEAKERS		
JACK801			E70-0005-08	TERMINAL BOARD ANTENNA		
⚠ F1			F04-5022-05	FUSE UL/CSA 5A(125V)	KPR	
⚠ F1			F05-2525-05	FUSE T2.5A(250V)	X	
⚠ F2			F06-2525-05	FUSE UL/CSA 2.5A(125V)	P	
⚠ F5 ,6			F05-5016-05	FUSE 0.5A(250V)	MX	
⚠ F5 ,6			F50-0049-08	FUSE UL/CSA 0.5A(250V)	KPR	
⚠ F1,2,3			F05-2525-05	FUSE T2.5A(250V)	M	
-			J13-0084-08	FUSE HOLDER		
-			J13-0084-08	FUSE HOLDER		
CF801,802			L72-0531-05	CERAMIC FILTER 10.7MHz		
CF803			L72-0096-05	CERAMIC FILTER		
L501,502			L39-0085-05	COIL 0.5UH		
L801			L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L802			L39-0189-05	COIL		
L804			L30-0488-05	IFT-AM		
L806			L30-0439-05	IFT-FM		
L901			L40-1001-17	SMALL FIXED INDUCTOR 10UH		
⚠ T501			L07-0778-08	TRANS FORMER	KPR	

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PARTS LIST

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⑤

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
⚠ T501			L07-0789-08	TRANS FORMER	X	
⚠ T501			L07-0790-08	TRANS FORMER	M	
X801			L77-1122-05	CRYSTAL RESONATOR 7.2MHz		
X901			L78-0209-05	RESONATOR 4.19MHz		
F	2D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
R55 -58			RD14GB2E220J	FL-PROOF RD 22 J 1/4W		
R63 ,64			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R65 ,66			RD14GB2E332J	FL-PROOF RD 3.3K J 1/4W		
R71 ,72		*	RN14BK3A100J	RN 10 J 1W		
R115		*	RD14GB2E010J	FL-PROOF RD 1.0 J 1/4W		
R116,117		*	RN14BK3D680J	RN 68 J 2W		
R121		*	RD14GB2E010J	FL-PROOF RD 1.0 J 1/4W		
R128			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R129			RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
R130			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R141			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R153,154			RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R215,216			RD14GB2E151J	FL-PROOF RD 150 J 1/4W		
R217-220			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R471,472		*	RN14BK3A561J	RN 560 J 1W		
R501-504			RD14GB2E220J	FL-PROOF RD 22 J 1/4W		
R519			RD14BB2H335J	RD 3.3M J 1/2W	KPR	
R806			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R810			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R836			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R851			RD14GB2E820J	FL-PROOF RD 82 J 1/4W		
R869			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
VR1 ,2			R12-1066-05	TRIMMING POT. IDLE ADJ 1K		
VR401,402		*	R39-0003-08	POTENTIOMETER BASS,TREBLE 10KB		
VR431			R39-0001-08	POTENTIOMETER VOLUME 100KB X3		
VR451			R10-5071-08	POTENTIOMETER BALANCE		
VR801			R12-3166-08	TRIM POT. 33KB FM TUNE LEVEL		
VR802			R12-1053-05	TRIM POT. 4.7KB VCO		
VR804			R12-3071-05	TRIM POT. 10KB AM TUNE LEVEL		
⚠ K501			S51-2092-05	MAGNETIC RELAY POWER		
K502			S76-0032-08	MAGNETIC RELAY SPEAKER		
S1			S62-0032-08	SLIDE SWITCH IMPEDANCE SEL		
⚠ S2			S31-3010-05	SLIDE SWITCH VOLTAGE SELECT	M	
S901-926		*	S70-0030-08	TACT SWITCH KEY BOARD		
SW451		*	S68-0040-08	PUSH SWITCH LOUNDNESS		
SW471			S62-0033-08	PUSH SWITCH SPEAKERS		
SW801			S62-0012-08	SLIDE SWITCH CH.SPACE,	M	
D1 -12			1SS131	DIODE		
D14 ,15			1SS131	DIODE		
D17 -19			1SS131	DIODE		
D22 ,23			1N4002	DIODE		
D26			1SS131	DIODE		
D31			RD13ES(B2)	ZENER DIODE		
D32			MTZJ6.2B	ZENER DIODE		
D33			MTZJ8.2B	ZENER DIODE		
D34			MTZJ3.9B	ZENER DIODE		
D35			RD5.1ES(B2)	ZENER DIODE		
D36 ,37			MTZ12B(B2)	ZENER DIODE		

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EXCEPT E,T

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⑥

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D42			D5FB20	DIODE		
⚠ D43 -46			1N4002	DIODE		
D201,202			1SS133	DIODE		
D501,502			1N4002A	DIODE		
D503-508			1SS133	DIODE		
D509			1N4002A	DIODE		
D510			MTZJ6.2B	ZENER DIODE		
⚠ D511-514			1N4002A	DIODE		
D515,516			1SS133	DIODE		
D801,802			1SS133	DIODE		
D810			RD5.1ES(B2)	ZENER DIODE		
D811,812			1SS133	DIODE		
D902-904			1SS133	DIODE		
D905			MTZJ6.8B	ZENER DIODE		
D908			1SS133	ZENER DIODE	X	
D909-918			1SS133	DIODE		
D920			RD4.7ES(B2)	ZENER DIODE		
D921			1SS133	DIODE		
D924			1SS133	DIODE	KPR	
FL901			5-MT-167GK	FLUORESCENT INDICATOR TUBE		
IC1			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC2			TC9162N	IC(ANALOG SWITCH ARRAY)		
IC3 ,4			NJM4565DD	IC(OP AMP X2)		
IC5			BA6209N	IC(MOTOR DRIVER)		
IC401			NJM4565DD	IC(OP AMP X2)		
IC501			UPC1237HA	IC(POWER AMP)		
IC801			LA1265	IC(FM/AM TUNER)		
IC802			AN7470	IC(FM MPX)		
IC803			LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
IC810			UPC78L05	IC(VOLTAGE REGULATOR/ +5V)		
IC901			CXP5016-526S	IC(4bit MICROPROCESSOR)		
IC901		*	CXP5016-531S	IC(4bit MICROPROCESSOR)		
Q1 -4			2SC2878B	TRANSISTOR		
Q5 ,6			2SC4137	TRANSISTOR		
Q7 ,8		*	2SD2222	TRANSISTOR		
Q9 ,10		*	2SB1470	TRANSISTOR		
Q11 ,12			2SC1845F	TRANSISTOR		
Q13 ,14			DTA114TS	DIGITAL TRANSISTOR		
Q15			2SC2235Y	TRANSISTOR		
⚠ Q16			2SD2058Y	TRANSISTOR		
Q17 ,18			2SC1740S	TRANSISTOR		
Q19 ,20			2SA933S	TRANSISTOR		
⚠ Q21			2SC2235Y	TRANSISTOR		
Q23			2SC1845F	TRANSISTOR		
Q24			2SA992F	TRANSISTOR		
Q25			2SB1274	TRANSISTOR		
Q201-204			2SA992F	TRANSISTOR		
Q205-208			2SC1845F	TRANSISTOR		
Q209,210			2SA992F	TRANSISTOR		
Q501,502			2SC2316(Y)	TRANSISTOR		
⚠ Q503			2SD882	TRANSISTOR		
Q801			2SC3194O	TRANSISTOR		
Q803			2SC1740S	TRANSISTOR		
Q804			2SC1845F	TRANSISTOR		
Q808,809			2SA933S	TRANSISTOR		

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
Q811,812			2SC1740S	TRANSISTOR	M	
Q901			2SA933S	TRANSISTOR		
Q902			2SC1740S	TRANSISTOR		
Q903			DTA143TS	DIGITAL TRANSISTOR	M	
A901			W02-1111-08	ELECTRIC CIRCUIT MODULE		
TU801			W02-1042-05	FM FRONT END UNIT	KPMXR	

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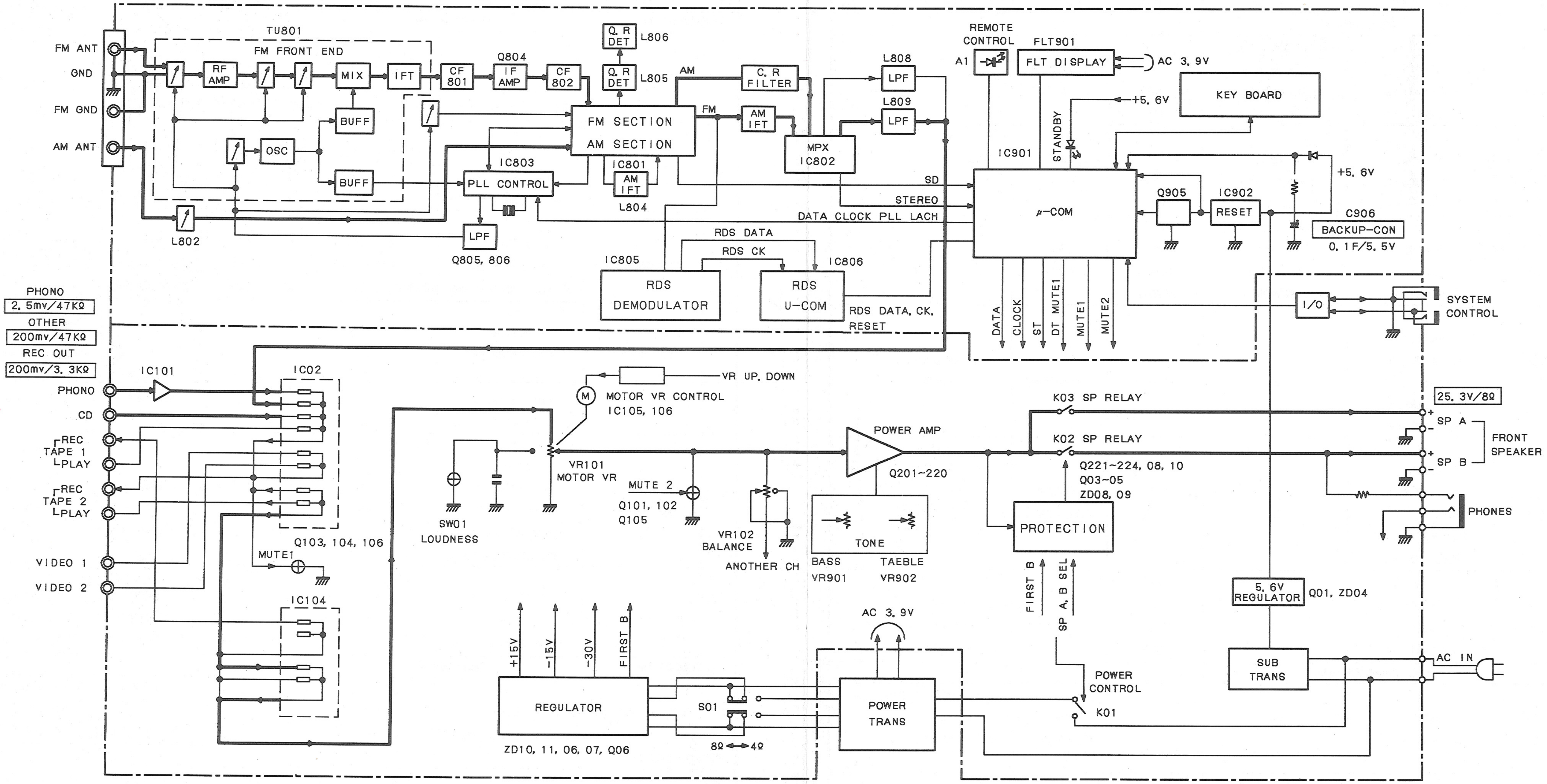
KR-A4060/A5060 KR-A4060/A5060

BLOCK DIAGRAM


FM ANT
GND
FM GND
AM ANT
TU801
FM FRONT END
RF AMP
MIX
IFT
OSC
BUFF
BUFF
CF 801
Q804
IF AMP
CF 802
Q. R DET
L806
Q. R DET
L805
AM
FM
FM SECTION
AM SECTION
C. R FILTER
AM IFT
MPX
IC802
L808
LPF
L809
LPF
IC803
PLL CONTROL
IC801
AM IFT
L804
L802
LPF
Q805, 806
SD
STEREO
DATA CLOCK PLL LACH
RDS DATA
RDS CK
IC805
RDS DEMODULATOR
IC806
RDS U-COM
RDS DATA, CK, RESET
REMOTE CONTROL
A1
FLT901
FLT DISPLAY
AC 3, 9V
KEY BOARD
+5, 6V
STANDBY
IC901
μ-COM
Q905
IC902
RESET
+5, 6V
C906
BACKUP-CON
0, 1F/5, 5V
DATA
CLOCK
ST
DT MUTE1
MUTE1
MUTE2
I/O
SYSTEM CONTROL
PHONO
2, 5mv/47KΩ
OTHER
200mv/47KΩ
REC OUT
200mv/3, 3KΩ
IC101
IC02
PHONO
CD
REC
TAPE 1
PLAY
REC
TAPE 2
PLAY
VIDEO 1
VIDEO 2
Q103, 104, 106
MUTE1
IC104
VR UP, DOWN
M
MOTOR VR CONTROL
IC105, 106
SW01
LOUDNESS
VR101
MOTOR VR
MUTE 2
Q101, 102
Q105
VR102
BALANCE
ANOTHER CH
POWER AMP
Q201~220
TONE
BASS
VR901
TAEBLE
VR902
K03 SP RELAY
K02 SP RELAY
Q221~224, 08, 10
Q03~05
ZD08, 09
PROTECTION
25, 3V/8Ω
SP A
SP B
FRONT SPEAKER
PHONES
FIRST B
SP A, B SEL
5, 6V REGULATOR
Q01, ZD04
+15V
-15V
-30V
FIRST B
REGULATOR
ZD10, 11, 06, 07, Q06
S01
8Ω↔4Ω
AC 3, 9V
POWER TRANS
POWER CONTROL
K01
SUB TRANS
AC IN

ADJUSTMENT

AM section : If alignment point is "–", confirm the value. If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		**SELECTOR : FM**					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±40kHz dev. 60dBµ(ANT. input)	Connect a DC voltmeter between TP801 and TP802. (TUNER UNIT)	AUTO or MONO 98.0MHz	L805 (TUNER UNIT)	0V.	(a)
2	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBµ(ANT. input)	Connect a Distortion meter (1kHz)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	Minimum distortion. (L or R)	
3	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBµ(ANT. input)	Connect a DC voltmeter between TP801 and TP802. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V.	(a)
4	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L or R Pilot : ±6.0kHz dev. 60dBµ(ANT. input)	(B)	98.0MHz	IFT (Front end pack)	Minimum distortion. (L or R)	
5	SEPARATION	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L or R Pilot : ±6.0kHz dev. 60dBµ(ANT. input)	(B)	AUTO 98.0MHz	VR803 (TUNER UNIT)	Minimum cross talk.	
6	TUNING LEVEL	(A) 98.0MHz 0 dev. 17dBµ(ANT. input)	(B)	AUTO or MONO 98.0MHz	VR802 (TUNER UNIT)	Adjust VR802 and stop at the point where FLT901 (TUNED) goes on.	
AM SECTION		**SELECTOR : AM**					
(1)	TUNING LEVEL	(D) 999MHz 26dBµ(ANT. input)	(B)	–	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	–	Connect a DC voltmeter across CP1 (L), CP2 (R) (MAIN UNIT)	Volume : 0	VR201 (L) VR202 (R) (AUDIO UNIT)	10mV	

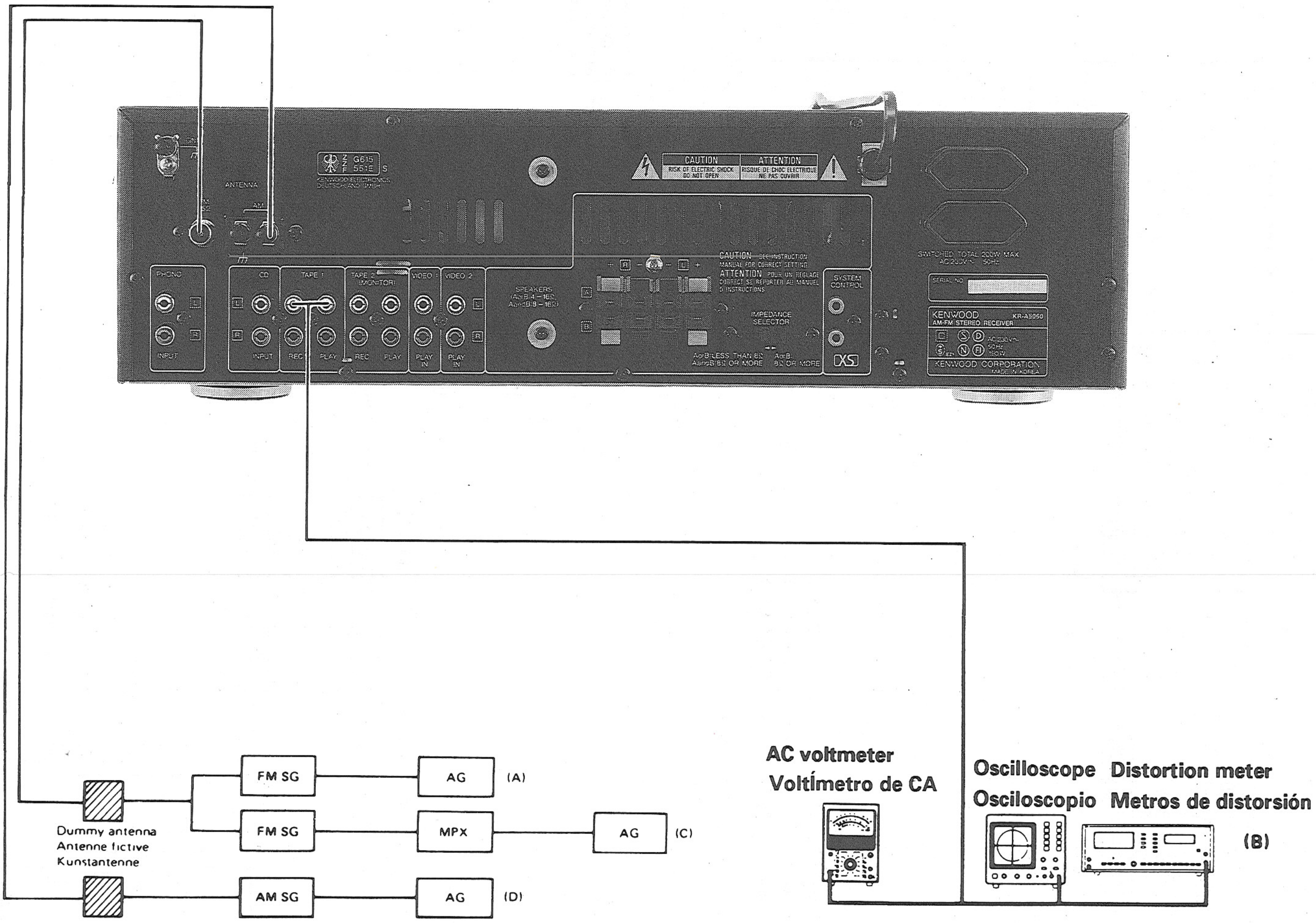
AJUSTES

Sección de AM : Si el punto de alineación es "–", confirme el valor. Si no, reemplace el paquete de entrada.

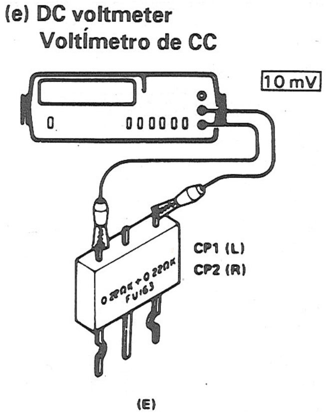
Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM		**SELECTOR ; FM**					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±40kHz dev. 60dBµ(Entrada de antena)	Conecte un voltímetro de CC entre TP801 y TP802. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L805 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
2	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBµ(Entrada de antena)	Conecte un medidor de Distorsión. (1kHz)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	Distortión mínima. (L o R)	
3	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBµ(Entrada de antena)	Conecte un voltímetro de CC entre TP801 y TP802. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
4	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L o R Piloto : ±6.0kHz dev. 60dBµ(Entrada de antena)	(B)	98.0MHz	IFT (Paqueste de entrada)	Distortión mínima. (L o R)	
5	SEPARACIÓN	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L o R Piloto : ±6.0kHz dev. 60dBµ(Entrada de antena)	(B)	AUTO 98.0MHz	VR803 (UNIDAD DEL SINTONIZADOR)	Diafonía mínima.	(b)
6	NIVEL DE SINTONÍA	(A) 98.0MHz 0 dev. 17dBµ(Entrada de antena)	(B)	AUTO o MONO 98.0MHz	VR802 (UNIDAD DEL SINTONIZADOR)	Ajuste VR802 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AM		**SELECTOR ; AM**					
(1)	NIVEL DE SINTONÍA	(D) 999MHz 26dBµ(Entrada de antena)	(B)	–	VR801 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AUDIO							
<1>	CORRIENTE EN REPOSO	–	Conecte un voltímetro de CC entre CP1 (L) y CP2 (R) (UNIDAD PRINCIPAL)	Volumen : 0	VR201 (L) VR202 (R) (UNIDAD AUDIO)	10mV	

ADJUSTMENT/AJUSTES

SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA


AC voltmeter
Voltímetro de CA
Oscilloscope
Osciloscopio
Distortion meter
Metros de distorsión
(B)
FM SG
AG
(A)
FM SG
MPX
AG
(C)
AM SG
AG
(D)
Dummy antenna
Antenne fictive
Kunstantenne

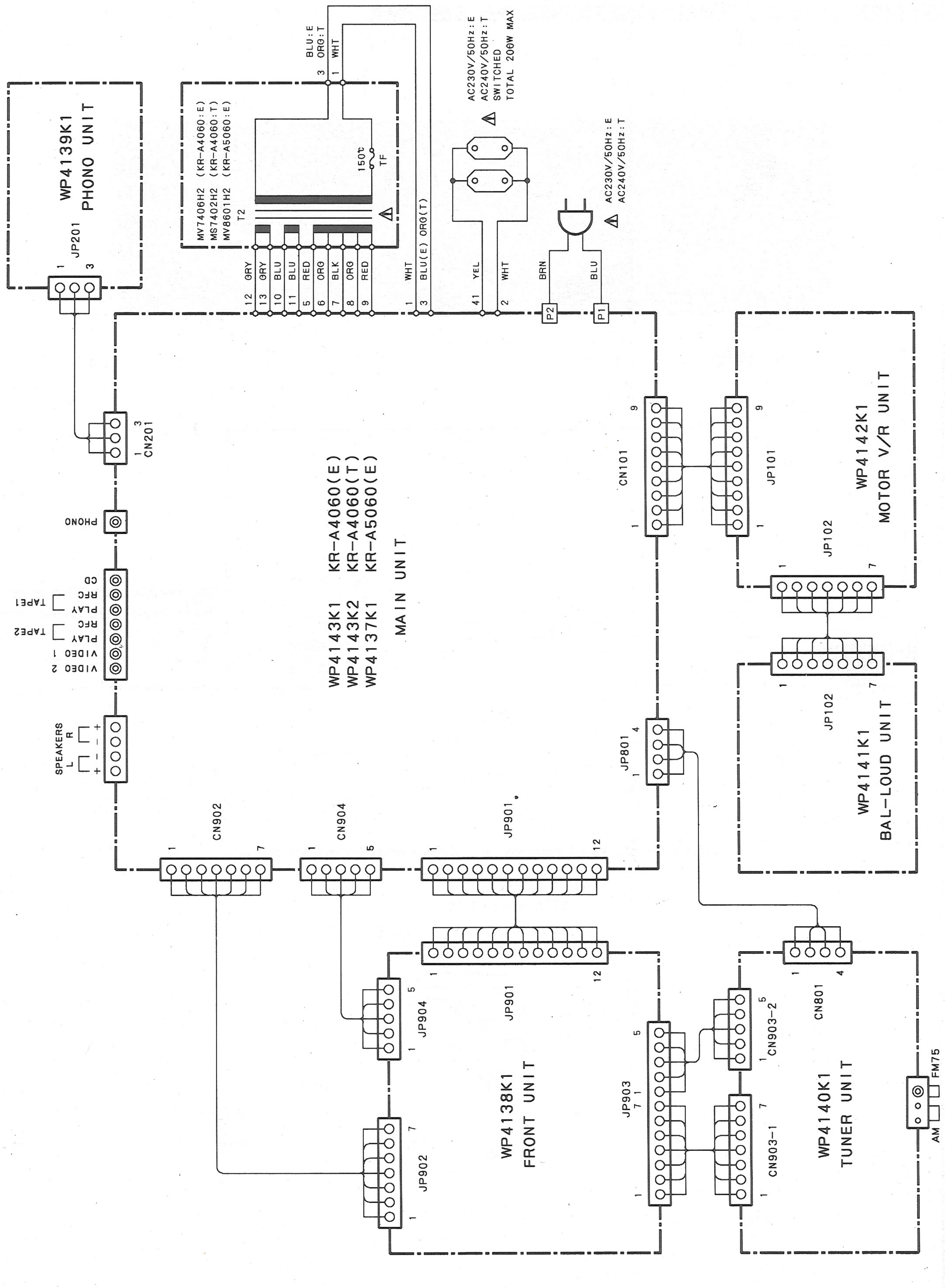
System connections/Raccordements du système/System-Anschlusse


(e) DC voltmeter
Voltímetro de CC
10 mV
CP1 (L)
CP2 (R)
(E)

E,T

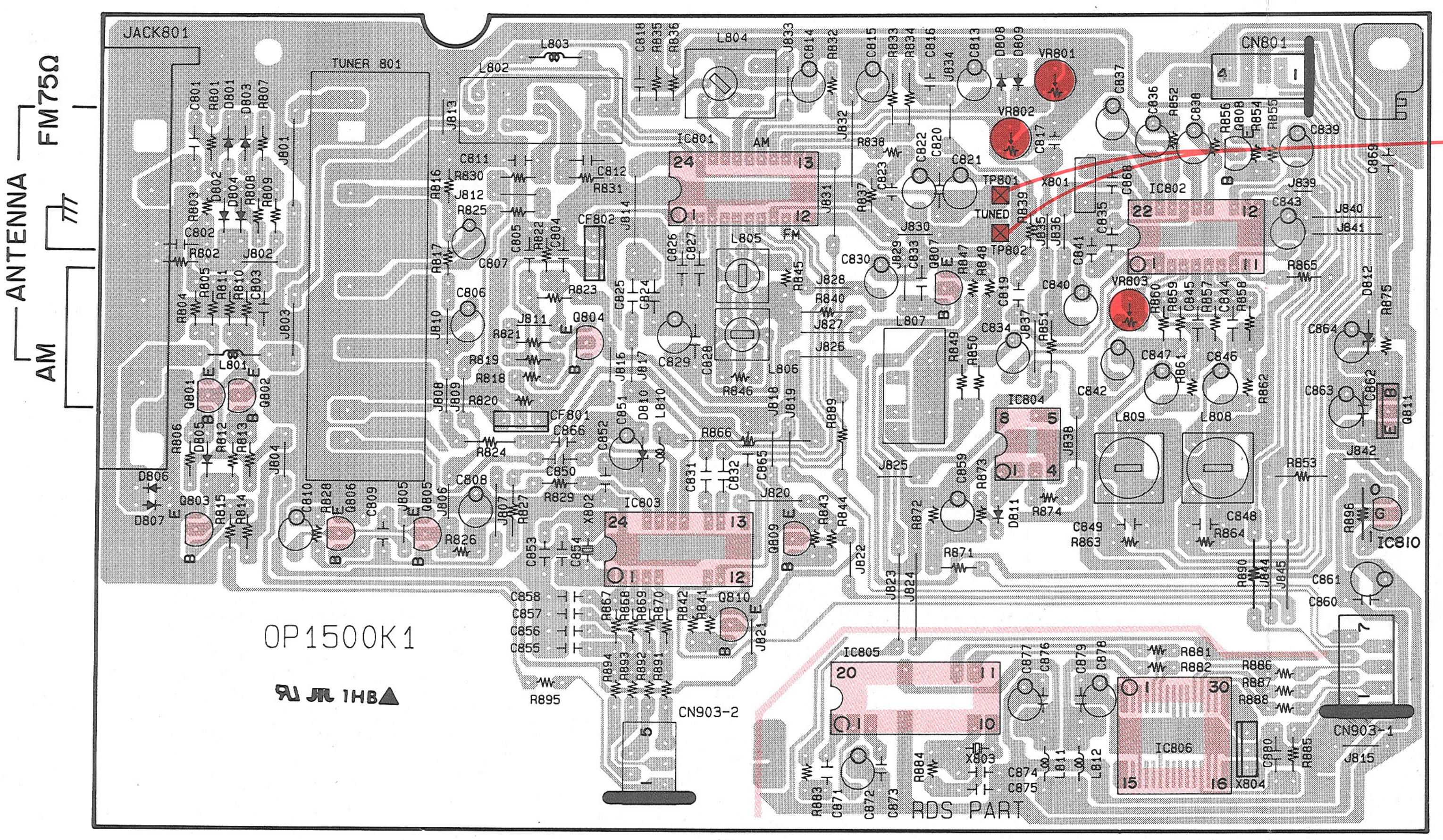
KR-A4060/A5060

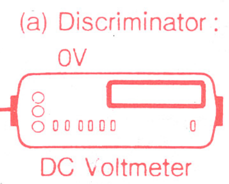
WIRING DIAGRAM

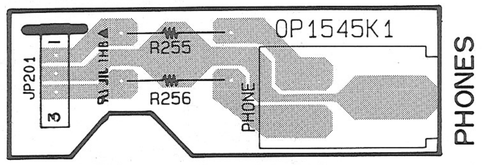

WP4139K1
PHONO UNIT
JP201
1
3
MV7406H2 (KR-A4060:E)
MS7402H2 (KR-A4060:T)
MV8601H2 (KR-A5060:E)
T2
150℃
TF
BLU:E
ORG:T
WHT
3
1
AC230V/50Hz:E
AC240V/50Hz:T
SWITCHED
TOTAL 200W MAX
AC230V/50Hz:E
AC240V/50Hz:T
GRY
GRY
BLU
BLU
RED
ORG
BLK
ORG
RED
WHT
BLU(E) ORG(T)
YEL
WHT
BRN
BLU
12
13
10
11
5
6
7
8
9
1
3
41
2
P2
P1
CN201
1
3
PHONO
CD
RFC
PLAY
TAPE1
RFC
PLAY
TAPE2
VIDEO 1
VIDEO 2
SPEAKERS
L
R
+
-
-
+
WP4143K1 KR-A4060(E)
WP4143K2 KR-A4060(T)
WP4137K1 KR-A5060(E)
MAIN UNIT
CN101
1
9
JP101
1
9
WP4142K1
MOTOR V/R UNIT
JP102
1
7
JP102
1
7
WP4141K1
BAL-LOUD UNIT
JP801
1
4
CN902
1
7
CN904
1
5
JP901
1
12
JP901
1
12
JP904
1
5
JP902
1
7
WP4138K1
FRONT UNIT
JP903
1
5
7
CN903-2
1
5
CN903-1
1
7
CN801
1
4
WP4140K1
TUNER UNIT
FM75
AM

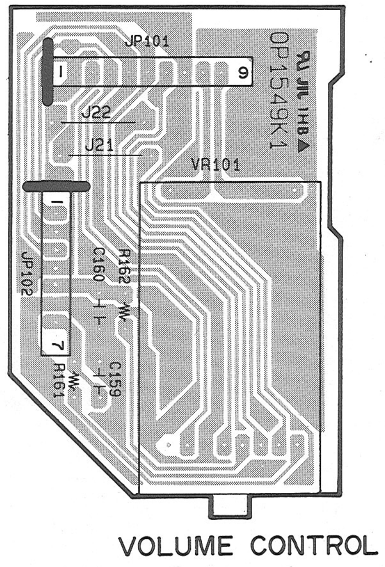
E,T

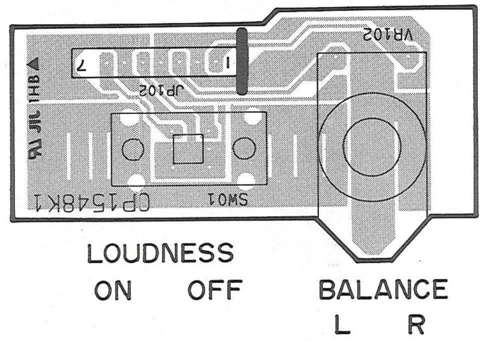
PC BOARD (COMPONENT SIDE VIEW) : KR-A4060/A5060

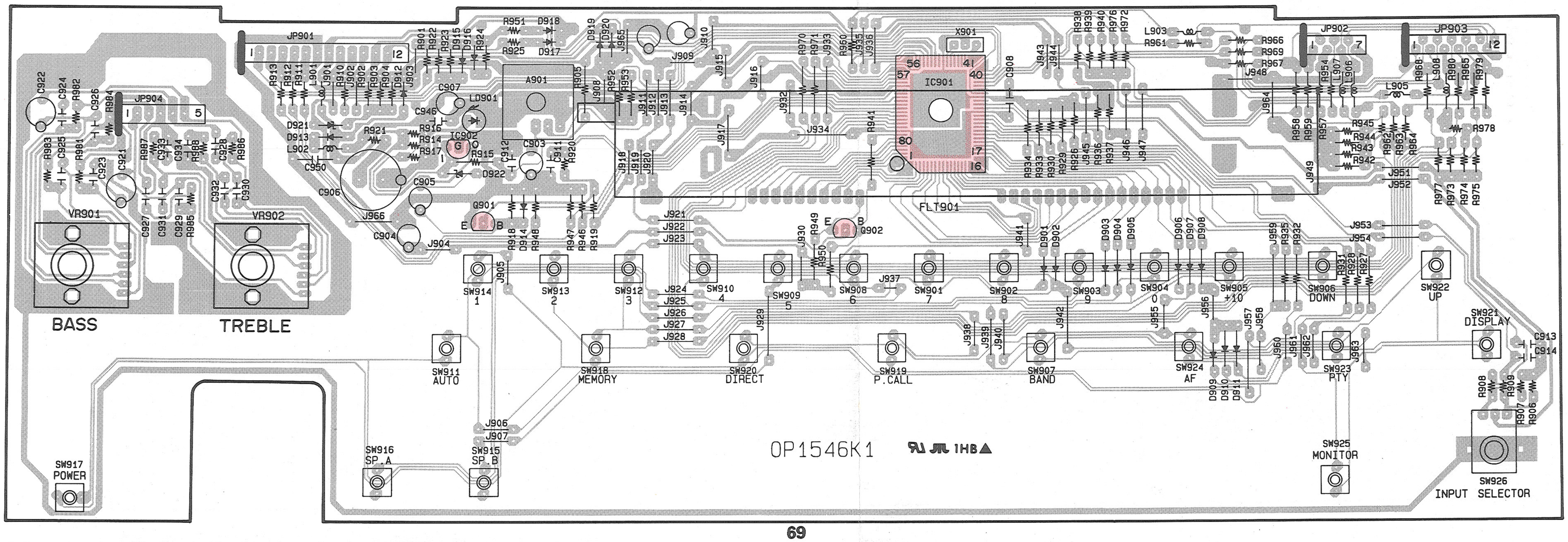

ANTENNA
FM75Ω
AM
JACK801
TUNER 801
IC801
IC802
IC803
IC804
IC805
IC806
IC810
CN801
CN903-2
CN903-1
VR801
VR802
VR803
TP801
TP802
TUNED
AM
FM
OP1500K1
RDS PART

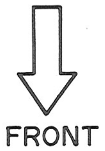

(a) Discriminator :
0V
DC Voltmeter


OP1545K1
JP201
R255
R256
PHONE
PHONES


JP101
OP1549K1
J22
J21
VR101
JP102
C160
R162
C159
R161
VOLUME CONTROL

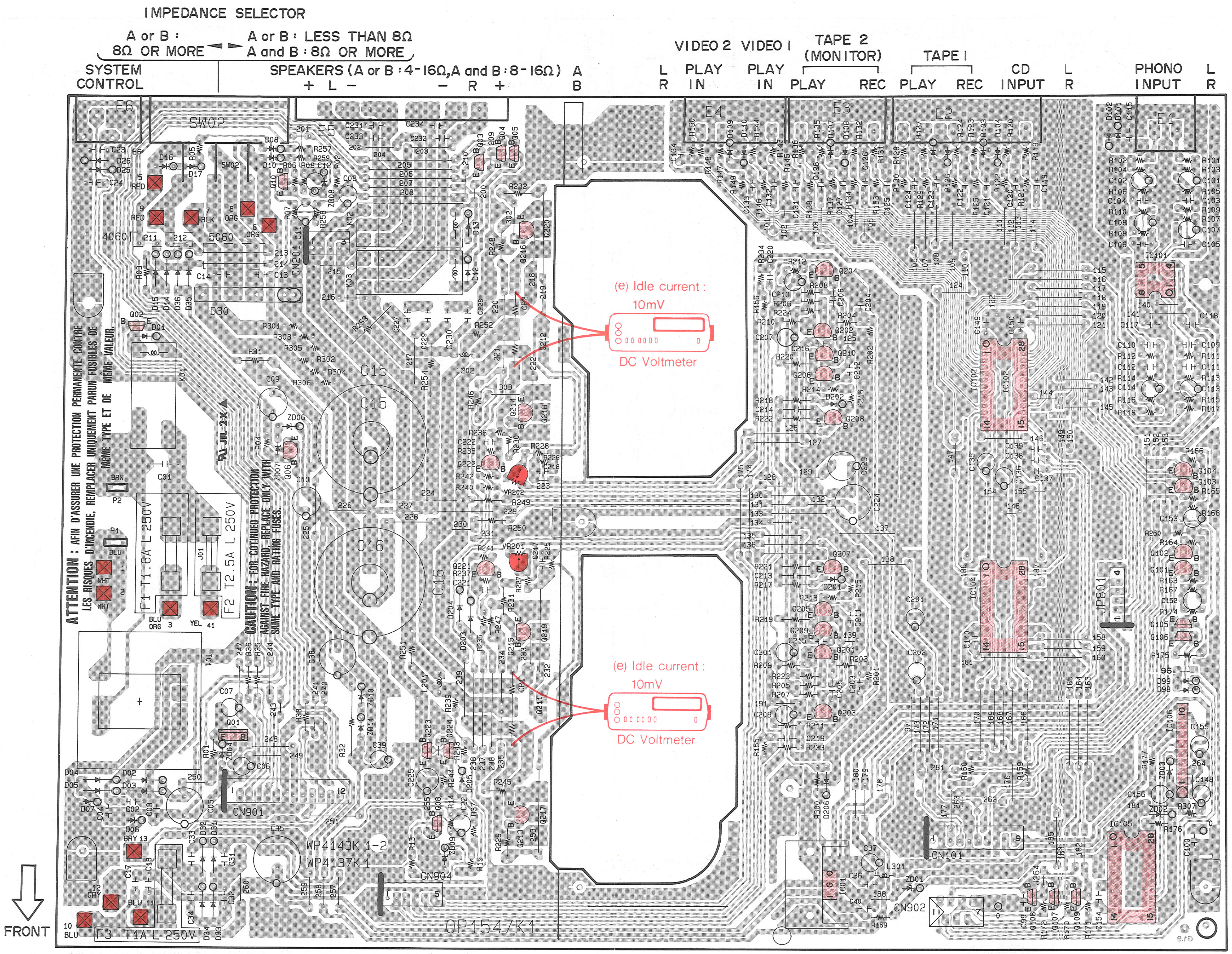

VR102
JP102
OP1548K1
SW01
LOUDNESS
ON OFF
BALANCE
L R


JP901
JP902
JP903
JP904
IC901
IC902
A901
LD901
X901
FLT901
Q901
Q902
VR901
VR902
BASS
TREBLE
SW914 1
SW913 2
SW912 3
SW910 4
SW909 5
SW908 6
SW901 7
SW902 8
SW903 9
SW904 0
SW905 +10
SW906 DOWN
SW922 UP
SW921 DISPLAY
SW911 AUTO
SW918 MEMORY
SW920 DIRECT
SW919 P.CALL
SW907 BAND
SW924 AF
SW923 PTY
SW925 MONITOR
SW926 INPUT SELECTOR
SW917 POWER
SW916 SP.A
SW915 SP.B
OP1546K1

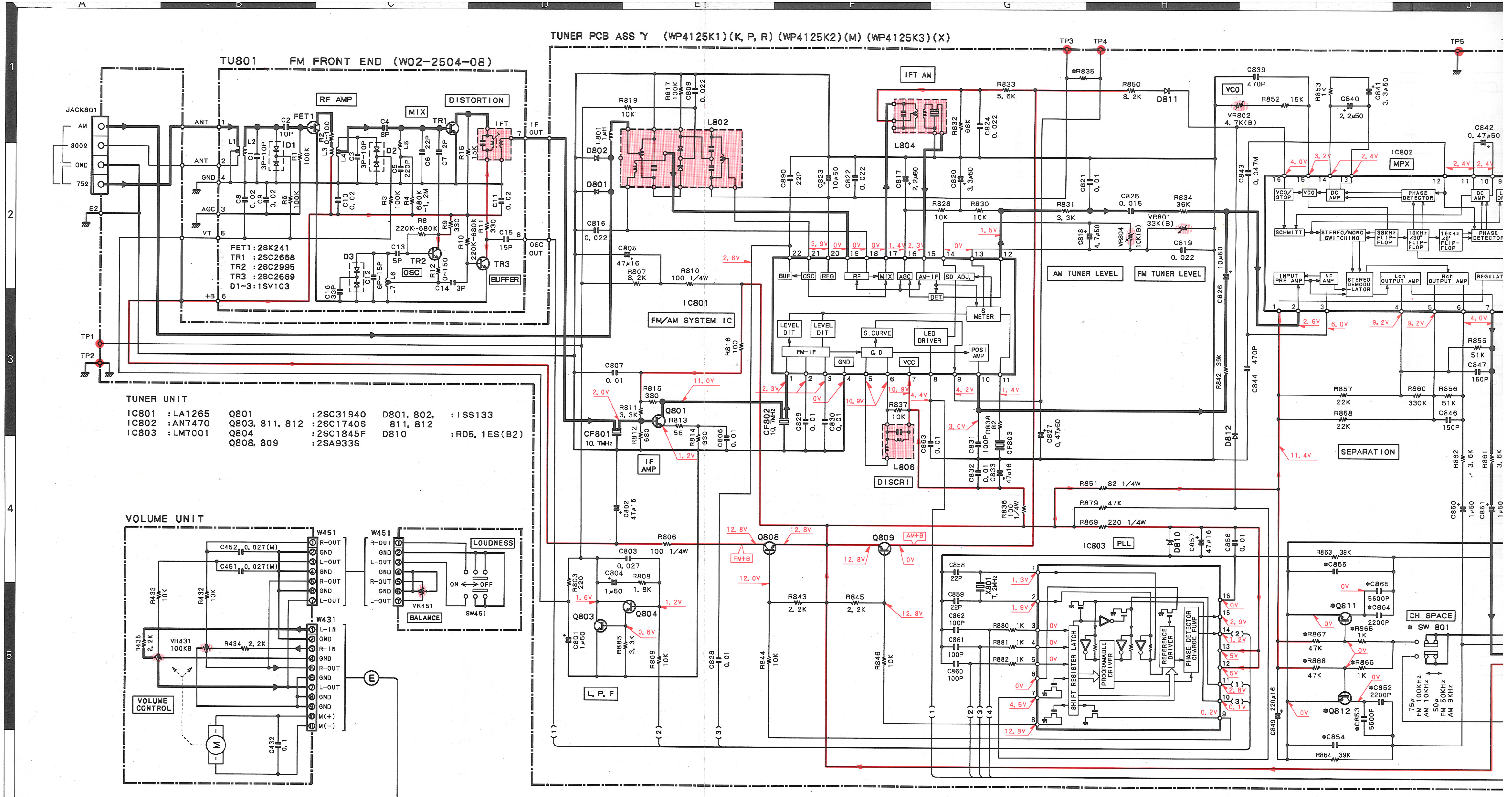


Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (COMPONENT SIDE VIEW) : KR-A4060/A5060


IMPEDANCE SELECTOR
A or B :
8Ω OR MORE
A or B : LESS THAN 8Ω
A and B : 8Ω OR MORE
SYSTEM CONTROL
SPEAKERS (A or B : 4-16Ω, A and B : 8-16Ω)
+ L −
− R +
A
B
VIDEO 2
VIDEO 1
TAPE 2 (MONITOR)
TAPE 1
L
R
PLAY IN
PLAY IN
PLAY
REC
PLAY
REC
CD INPUT
L
R
PHONO INPUT
L
R
E6
SW02
E5
E4
E3
E2
E1
4060
5060
(e) Idle current : 10mV
DC Voltmeter
(e) Idle current : 10mV
DC Voltmeter
ATTENTION : AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLES DE MÊME TYPE ET DE MÊME VALEUR.
CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATING FUSES.
F1 T1.6A L 250V
F2 T2.5A L 250V
F3 T1A L 250V
C15
C16
IC101
IC102
IC104
IC105
IC106
JP801
CN901
CN904
CN101
CN902
WP4143K 1-2
WP4137K 1
OP1547K1
FRONT

Refer to the schematic diagram for the values of resistors and capacitors.


TUNER PCB ASS 'Y (WP4125K1)(K, P, R) (WP4125K2)(M) (WP4125K3)(X)
TU801 FM FRONT END (W02-2504-08)
RF AMP
MIX
DISTORTION
OSC
BUFFER
JACK801
AM
300Ω
GND
75Ω
TP1
TP2
TP3
TP4
TP5
IFT AM
L802
L804
L806
DISCRI
IC801
FM/AM SYSTEM IC
IF AMP
L.P.F
IC802
MPX
VCO
AM TUNER LEVEL
FM TUNER LEVEL
SEPARATION
IC803
PLL
CH SPACE
SW 801
Q801
Q803
Q804
Q808
Q809
Q811
Q812
VOLUME UNIT
W451
W431
LOUDNESS
BALANCE
VR451
SW451
VR431 100KB
VOLUME CONTROL
E

TUNER UNIT

IC801 :LA1265
IC802 :AN7470
IC803 :LM7001

Q801 :2SC31940
Q803, 811, 812 :2SC1740S
Q804 :2SC1845F
Q808, 809 :2SA933S

D801, 802, 811, 812 :1SS133
D810 :RD5, 1ES(B2)

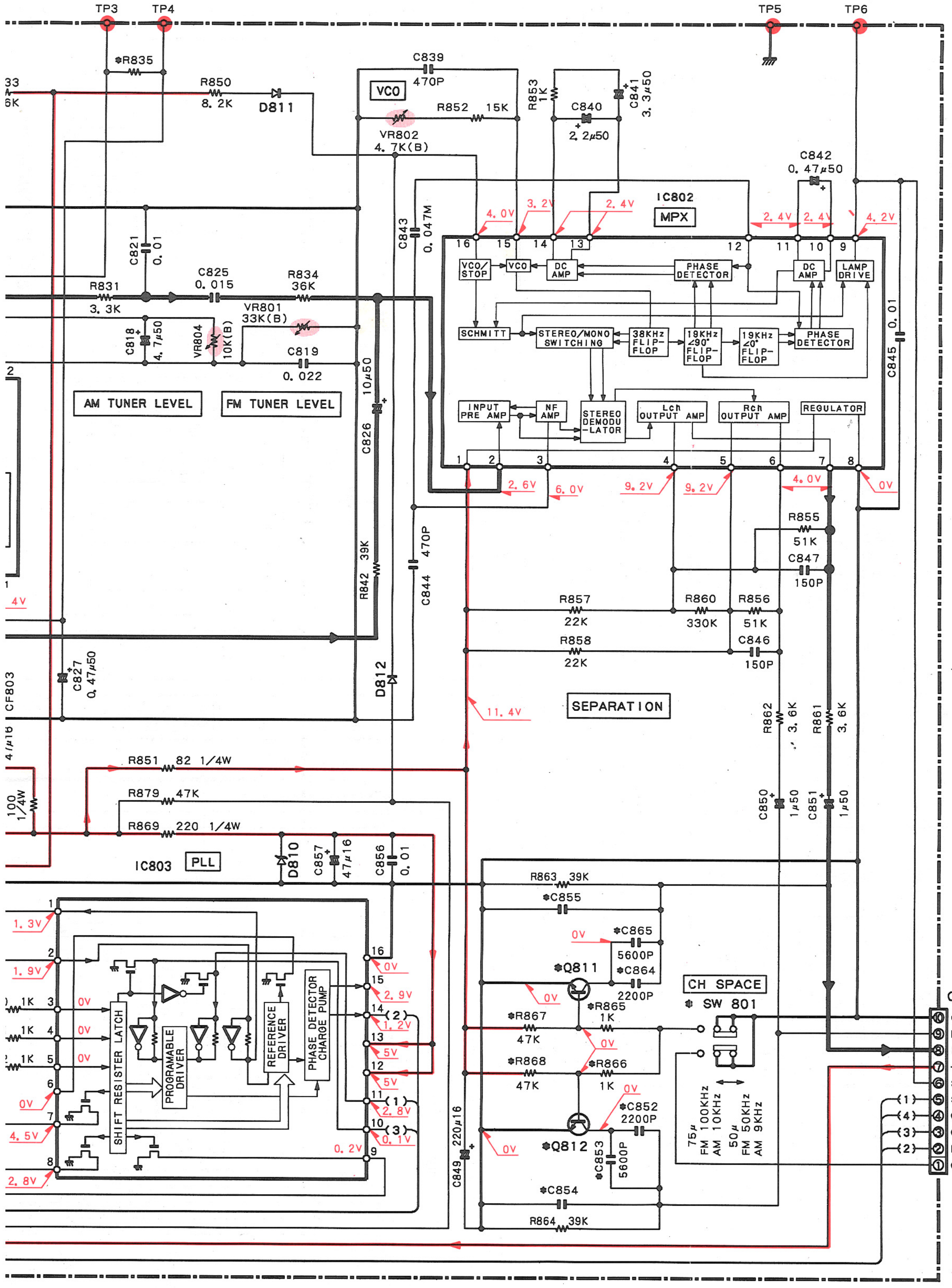
FET1:2SK241
TR1 :2SC2668
TR2 :2SC2995
TR3 :2SC2669
D1~3:1SV103

TUNER UNIT

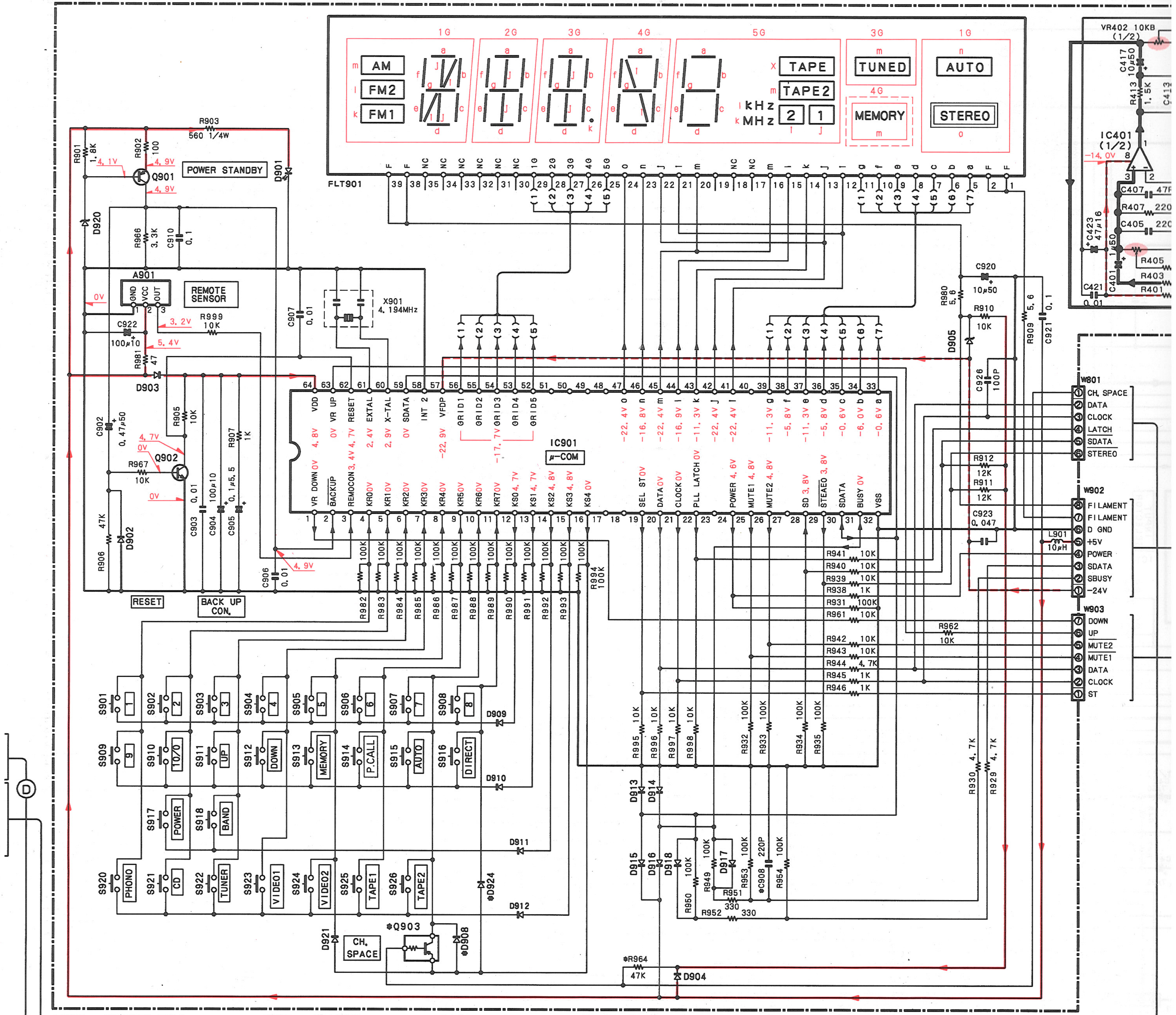
DESTINATION		Q811	Q812	R835	R865	R866	R867	R868	SW801	C852	C853	C864	C865	C854	C855
COUNTRY	ABB.														
U. S. A. CANADA	K P	NO	NO	15K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0. 022μF	0. 022μF
GENERAL MARKET	M	YES	YES	39K	YES	YES	YES	YES	YES	YES	YES	YES	YES	0. 015μF	0. 015μF
AUSTRALIA	X	NO	NO	39K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0. 015μF	0. 015μF

FRONT/TONE PCB ASS 'Y

DESTINATION		Q903	D908	D924
COUNTRY	ABB.			
U. S. A.	K	NO	NO	YES
CANADA	P	NO	NO	YES
GENERAL MARKET	M	YES	NO	NO
AUSTRALIA	X	NO	YES	NO


TP3
TP4
TP5
TP6
VCO
IC802
MPX
VCO/STOP
DC AMP
PHASE DETECTOR
LAMP DRIVE
SCHMITT
STEREO/MONO SWITCHING
38KHz FLIP-FLOP
19KHz ∠90° FLIP-FLOP
19KHz ∠0° FLIP-FLOP
INPUT PRE AMP
NF AMP
STEREO DEMODU-LATOR
Lch OUTPUT AMP
Rch OUTPUT AMP
REGULATOR
AM TUNER LEVEL
FM TUNER LEVEL
VR801 33K(B)
VR802 4.7K(B)
VR804 10K(B)
SEPARATION
IC803
PLL
SHIFT REGISTER LATCH
PROGRAMABLE DRIVER
REFERENCE DRIVER
PHASE DETECTOR CHARGE PUMP
CH SPACE
SW 801
75μ FM 100KHz AM 10KHz
50μ FM 50KHz AM 9KHz
Q811
Q812
CN801
GND
Rch
Lch
+B
STEREO
SD
CE
CLK
DATA
CH. SPACE
D811
D812
D810

FRONT/TONE PCB ASS'Y (WP4127K1)(K, P, R) (WP4127K2)(M) (WP4127K3)(X)

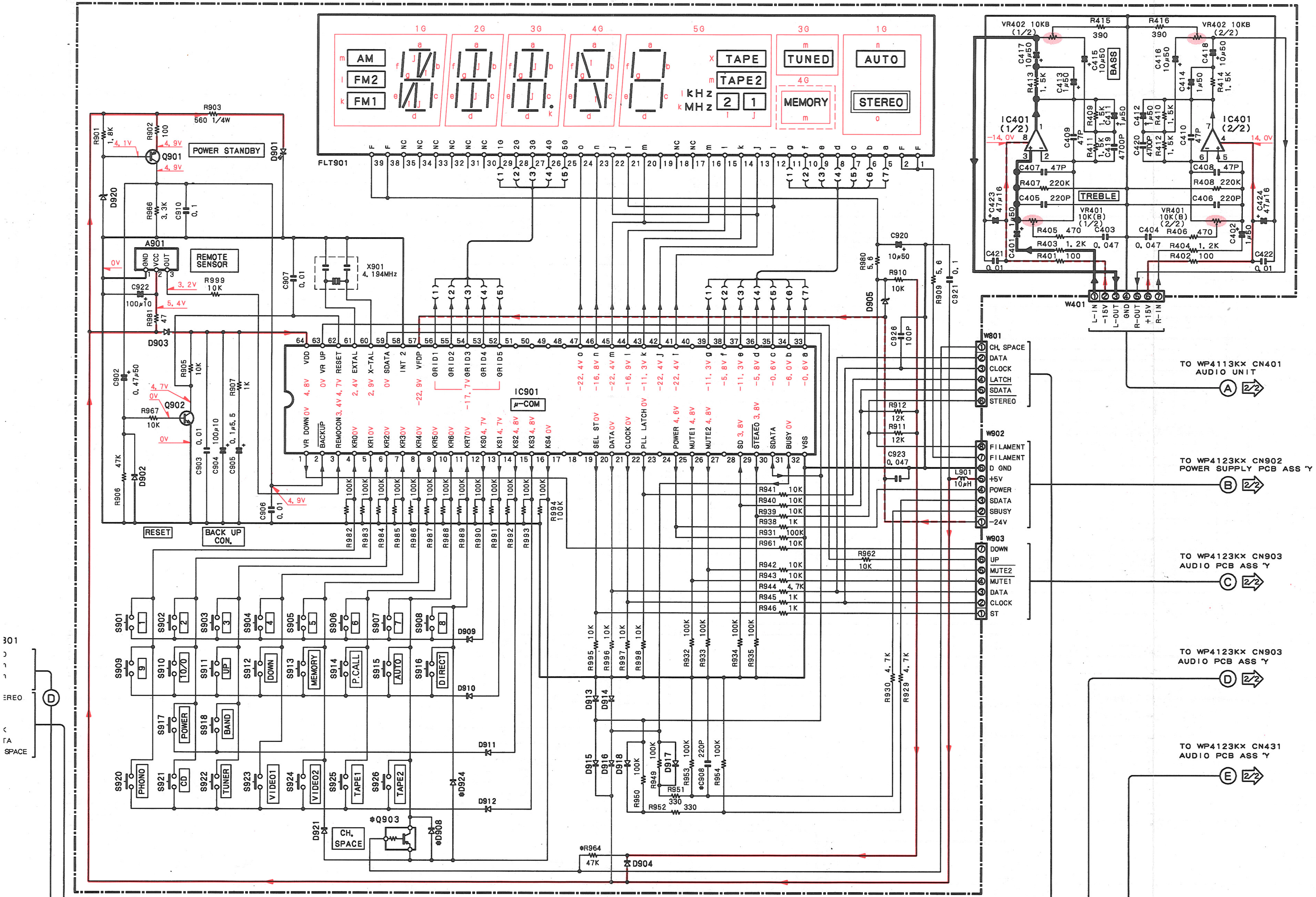

AM
FM2
FM1
TAPE
TAPE2
TUNED
AUTO
MEMORY
STEREO
kHz
MHz
FLT901
POWER STANDBY
Q901
Q902
A901
REMOTE SENSOR
X901 4.194MHz
IC901
μ-COM
RESET
BACK UP CON.
IC401 (1/2)
VR402 10KB (1/2)
W901
CH. SPACE
DATA
CLOCK
LATCH
SDATA
STEREO
W902
FILAMENT
FILAMENT
D GND
+5V
POWER
SDATA
SBUSY
-24V
W903
DOWN
UP
MUTE2
MUTE1
DATA
CLOCK
ST
S901
S909
S917
S918
S920
S921
S922
S923
S924
S925
S926
10/0
UP
DOWN
MEMORY
P.CALL
AUTO
DIRECT
POWER
BAND
PHONO
CD
TUNER
VIDEO1
VIDEO2
TAPE1
TAPE2
CH. SPACE
Q903

FRONT/TONE PCB ASS'Y

DESTINATION		Q903	D908	D924	R964	C908
COUNTRY	ABB.					
U. S. A.	K	NO	NO	YES	NO	YES
CANADA	P	NO	NO	YES	NO	YES
GENERAL MARKET	M	YES	NO	NO	YES	NO
AUSTRALIA	X	NO	YES	NO	NO	NO

IC901 :CXP5016-531S or CXP5016-526S
IC401 :NJM4565DD
Q901 :2SA933S
Q902 :2SC1740S
Q903 :DTA143TS
D901 :B30-0413-05
D902-904 908-918 921, 924 :1SS133
D905 :MTZJ6. 8B
D920 :RD4. 7ES(B2)
A901 :W02-1111-08
FLT901 :5-MT-167GK

FRONT/TONE PCB ASS'Y (WP4127K1)(K, P, R) (WP4127K2)(M) (WP4127K3)(X)


AM
FM2
FM1
TAPE
TAPE2
TUNED
AUTO
MEMORY
STEREO
kHz
MHz
FLT901
POWER STANDBY
REMOTE SENSOR
A901
X901 4. 194MHz
IC901 μ-COM
IC401 (1/2)
IC401 (2/2)
VR402 10KB (1/2)
VR402 10KB (2/2)
BASS
TREBLE
VR401 10K(B) (1/2)
VR401 10K(B) (2/2)
W401
L-IN
-15V
L-OUT
GND
R-OUT
+15V
R-IN
W901
CH, SPACE
DATA
CLOCK
LATCH
SDATA
STEREO
W902
FILAMENT
FILAMENT
D GND
+5V
POWER
SDATA
SBUSY
-24V
W903
DOWN
UP
MUTE2
MUTE1
DATA
CLOCK
ST
TO WP4113KX CN401 AUDIO UNIT
A 2/2
TO WP4123KX CN902 POWER SUPPLY PCB ASS'Y
B 2/2
TO WP4123KX CN903 AUDIO PCB ASS'Y
C 2/2
TO WP4123KX CN903 AUDIO PCB ASS'Y
D 2/2
TO WP4123KX CN431 AUDIO PCB ASS'Y
E 2/2
RESET
BACK UP CON.
PHONO
CD
TUNER
VIDEO1
VIDEO2
TAPE1
TAPE2
POWER
BAND
P.CALL
AUTO
DIRECT
MEMORY
DOWN
UP
CH. SPACE
Q901
Q902
Q903
D901
D903
D904
D905
D920
L901 10μH

IC901 :CXP5016-531S or
CXP5016-526S
IC401 :NJM4565DD

Q901 :2SA933S
Q902 :2SC1740S
Q903 :DTA143TS

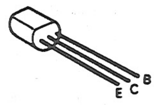
D901 :B30-0413-05
D902-904 908-918 921, 924 :1SS133

D905 :MTZJ6. 8B
D920 :RD4. 7ES(B2)

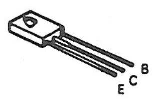
A901 :W02-1111-08
FLT901 :5-MT-167GK

━━ SIGNAL LINE
━━ GND LINE
── +B LINE
- - - −B LINE

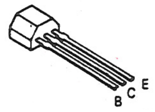
2SC2235Y
2SC2878B



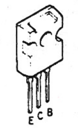
2SD882



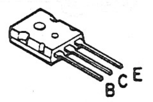
DTA143TS
2SA933S
2SC1740S



2SC4137



2SB1470
2SD2222



- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

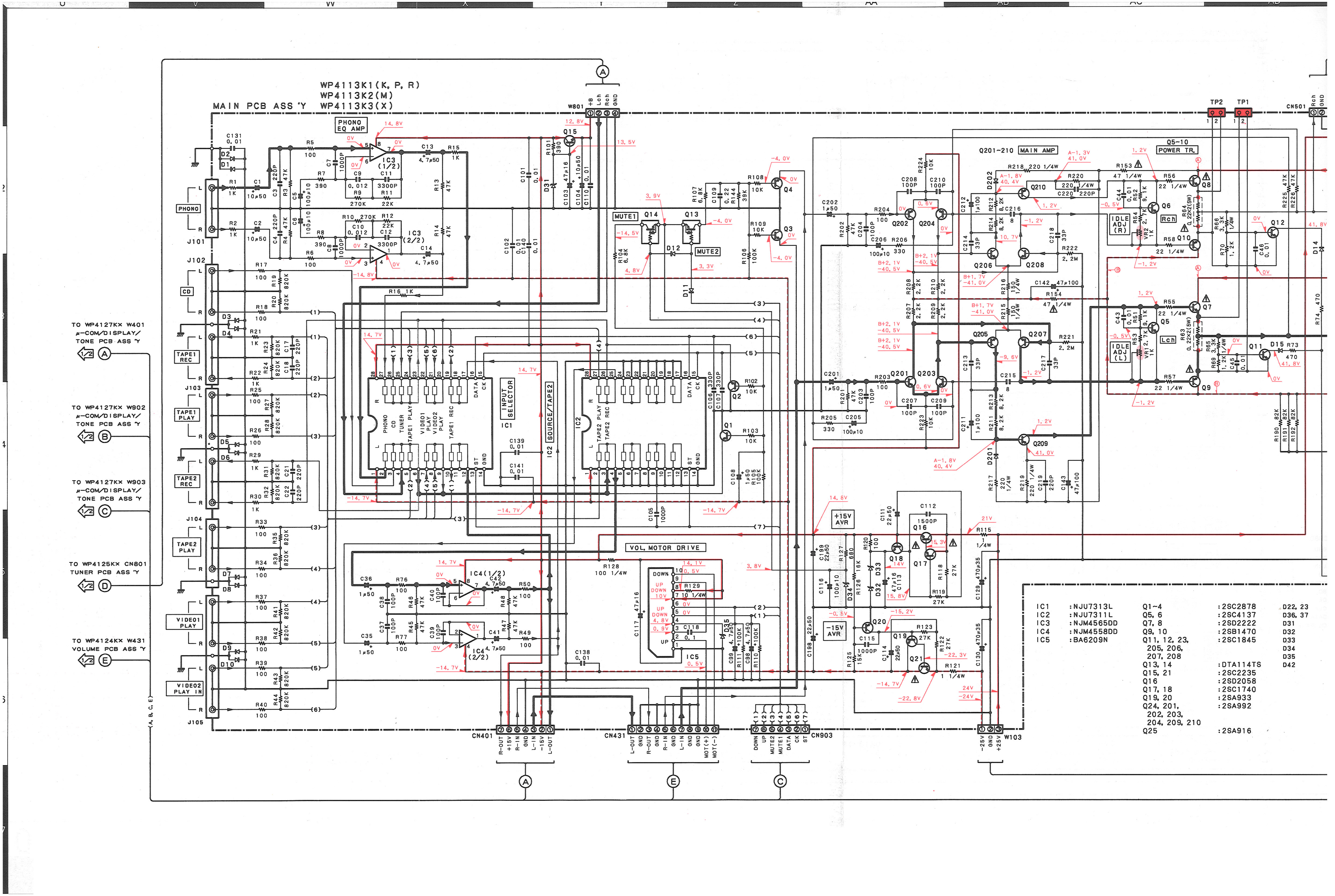
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

1/2 (Except E, T)

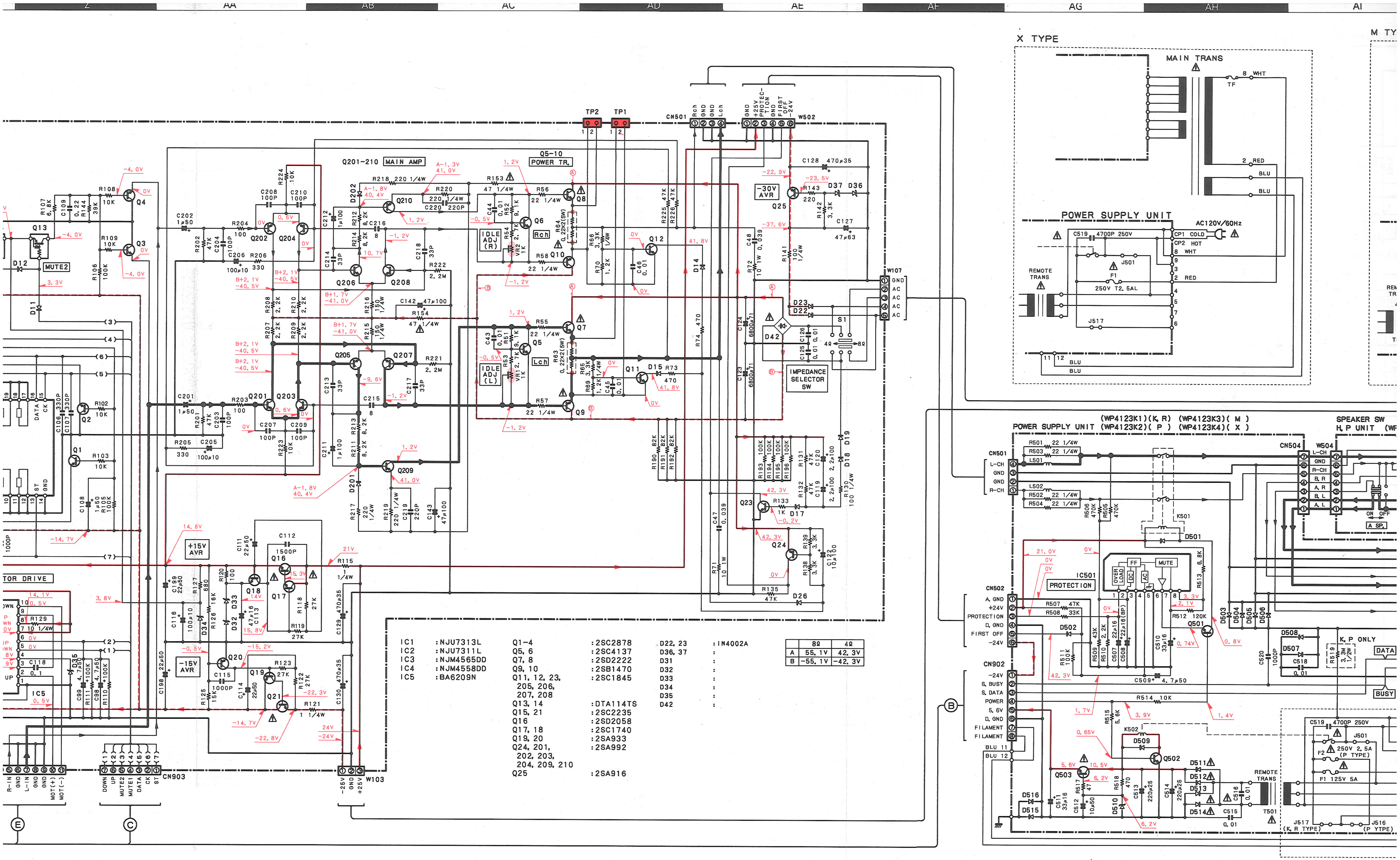
Y05-2880-10

KR-A5060

KENWOOD

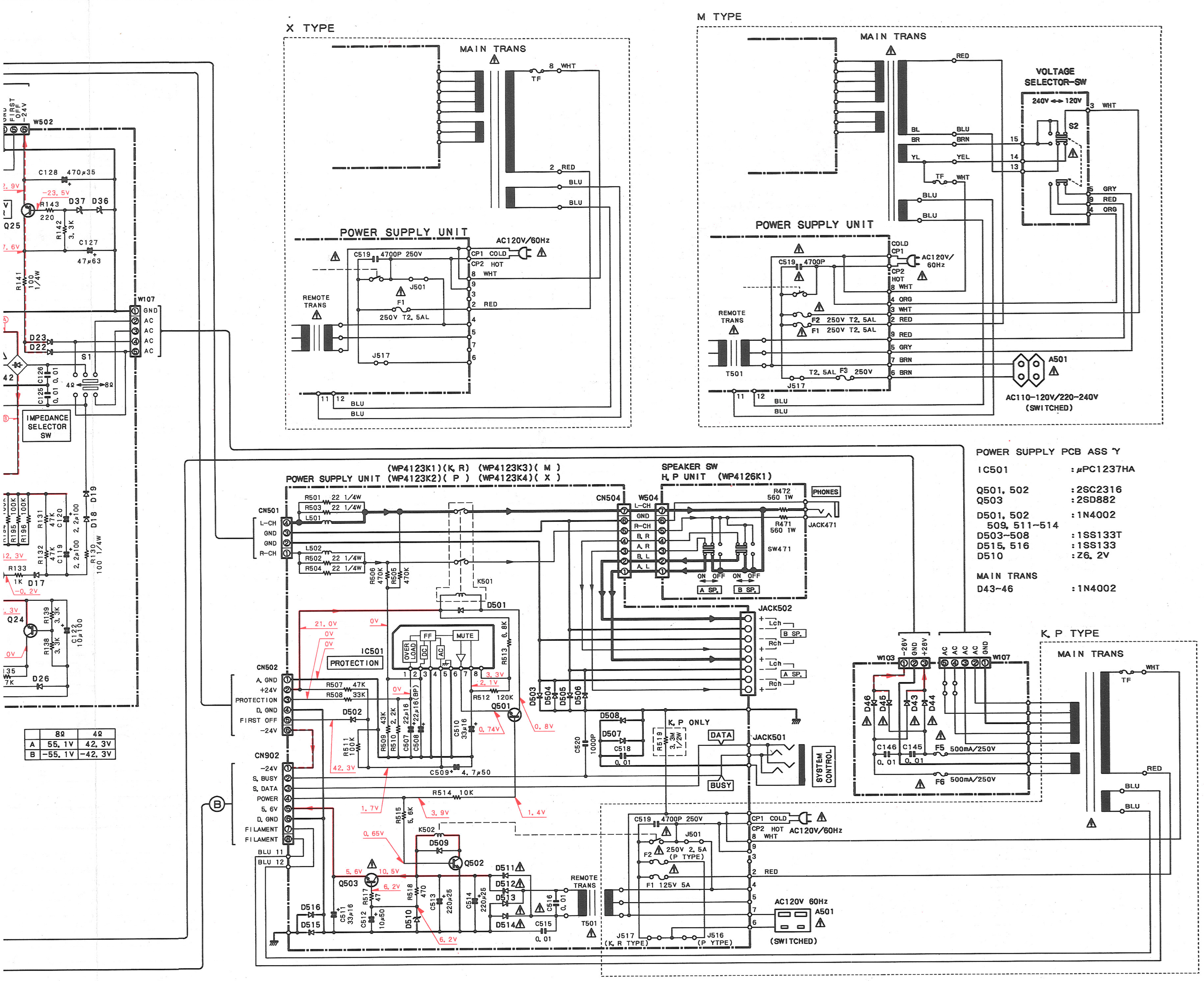

MAIN PCB ASS 'Y
WP4113K1(K, P, R)
WP4113K2(M)
WP4113K3(X)
PHONO EQ AMP
IC3 (1/2)
IC3 (2/2)
INPUT SELECTOR
IC1
SOURCE/TAPE2
IC2
MUTE1
MUTE2
Q201~210 MAIN AMP
Q5~10 POWER TR.
IDLE ADJ (R)
IDLE ADJ (L)
Rch
Lch
VOL, MOTOR DRIVE
IC4(1/2)
IC4(2/2)
IC5
+15V AVR
-15V AVR
PHONO
CD
TAPE1 REC
TAPE1 PLAY
TAPE2 REC
TAPE2 PLAY
VIDEO1 PLAY
VIDEO2 PLAY IN
J101
J102
J103
J104
J105
W801
CN501
TP1
TP2
CN401
CN431
CN903
W103
TO WP4127KX W401 μ-COM/DISPLAY/ TONE PCB ASS 'Y
TO WP4127KX W902 μ-COM/DISPLAY/ TONE PCB ASS 'Y
TO WP4127KX W903 μ-COM/DISPLAY/ TONE PCB ASS 'Y
TO WP4125KX CN801 TUNER PCB ASS 'Y
TO WP4124KX W431 VOLUME PCB ASS 'Y
1/2 A
1/2 B
1/2 C
1/2 D
1/2 E
(A, B, C, E)
R-OUT
+15V
R-IN
GND
L-IN
-15V
L-OUT
MOT(+)
MOT(-)
DOWN
UP
MUTE2
MUTE1
DATA
CK
ST
-25V
+25V

IC1	:NJU7313L	Q1~4	:2SC2878	D22, 23
IC2	:NJU7311L	Q5, 6	:2SC4137	D36, 37
IC3	:NJM4565DD	Q7, 8	:2SD2222	D31
IC4	:NJM4558DD	Q9, 10	:2SB1470	D32
IC5	:BA6209N	Q11, 12, 23, 205, 206, 207, 208	:2SC1845	D33
				D34
				D35
		Q13, 14	:DTA114TS	D42
		Q15, 21	:2SC2235	
		Q16	:2SD2058	
		Q17, 18	:2SC1740	
		Q19, 20	:2SA933	
		Q24, 201, 202, 203, 204, 209, 210	:2SA992	
		Q25	:2SA916	


Z
AA
AB
AC
AD
AE
AF
AG
AH
AI
X TYPE
M TY
MAIN TRANS
POWER SUPPLY UNIT
AC120V/60Hz
REMOTE TRANS
Q201~210 MAIN AMP
Q5~10 POWER TR.
TP2
TP1
CN501
W502
W107
IMPEDANCE SELECTOR SW
IDLE ADJ (R)
IDLE ADJ (L)
Rch
Lch
MUTE2
-30V AVR
+15V AVR
-15V AVR
TOR DRIVE
CN903
W103
POWER SUPPLY UNIT (WP4123K1)(K, R) (WP4123K3)(M) (WP4123K2)(P) (WP4123K4)(X)
SPEAKER SW H, P UNIT
CN501
CN504
W504
CN502
CN902
IC501 PROTECTION
K501
K502
J501
J516
J517
T501
F1 125V 5A
F2 250V 2.5A (P TYPE)
K, P ONLY
DATA
BUSY
A SP.
ON OFF

IC		Q		D	
IC1	:NJU7313L	Q1~4	:2SC2878	D22, 23	:IN4002A
IC2	:NJU7311L	Q5, 6	:2SC4137	D36, 37	:
IC3	:NJM4565DD	Q7, 8	:2SD2222	D31	:
IC4	:NJM4558DD	Q9, 10	:2SB1470	D32	:
IC5	:BA6209N	Q11, 12, 23, 205, 206, 207, 208	:2SC1845	D33	:
		Q13, 14	:DTA114TS	D34	:
		Q15, 21	:2SC2235	D35	:
		Q16	:2SD2058	D42	:
		Q17, 18	:2SC1740		
		Q19, 20	:2SA933		
		Q24, 201, 202, 203, 204, 209, 210	:2SA992		
		Q25	:2SA916		

	8Ω	4Ω
A	55. 1V	42. 3V
B	-55. 1V	-42. 3V


X TYPE
MAIN TRANS
8 WHT
TF
2 RED
BLU
BLU
POWER SUPPLY UNIT
AC120V/60Hz
C519 4700P 250V
CP1 COLD
CP2 HOT
8 WHT
J501
F1
250V T2. 5AL
REMOTE TRANS
J517
11 12 BLU
BLU
M TYPE
MAIN TRANS
RED
VOLTAGE SELECTOR-SW
240V ↔ 120V
3 WHT
S2
BL BLU
BR BRN
YL YEL
TF WHT
GRY
RED
ORG
POWER SUPPLY UNIT
COLD CP1
AC120V/60Hz
CP2 HOT
C519 4700P
F2 250V T2. 5AL
F1 250V T2. 5AL
T2. 5AL F3 250V
T501
A501
AC110-120V/220-240V (SWITCHED)
W502
C128 470μ35
-23. 5V
R143 220
D37 D36
R142 3. 3k
C127 47μ63
Q25
R141 100 1/4W
W107
GND AC AC AC AC
D23
D22
S1
IMPEDANCE SELECTOR SW
R133 1K D17
Q24
R139 3. 3k
R138 3. 3k
C122 10μ100
D26
(WP4123K1)(K, R) (WP4123K3)(M)
POWER SUPPLY UNIT (WP4123K2)(P) (WP4123K4)(X)
SPEAKER SW
H, P UNIT (WP4126K1)
CN501
L-CH GND GND R-CH
R501 22 1/4W
R503 22 1/4W
L501
L502
R502 22 1/4W
R504 22 1/4W
R506 470K
R505 470K
K501
D501
CN504
W504
R472 560 1W
PHONES
JACK471
R471 560 1W
SW471
ON OFF ON OFF
A SP. B SP.
JACK502
Lch B SP. Rch Lch A SP. Rch
CN502
A. GND +24V PROTECTION D. GND FIRST OFF -24V
IC501
PROTECTION
OVER LOAD DC AC FF MUTE
R507 47K
R508 33K
D502
R511 100K
R509 43K
R510 2.2K
C507 22μ16
C508 22μ16(BP)
C510 33μ16
R512 120K
Q501
R513 6.8K
D503 D504 D505 D506
D508
D507
C518 0.01
C520 1000P
R519 3.3M 1/2W
K, P ONLY
DATA
JACK501
BUSY
SYSTEM CONTROL
C509 4.7μ50
R514 10K
CN902
-24V S. BUSY S. DATA POWER 5. 6V D. GND FILAMENT FILAMENT BLU 11 BLU 12
B
R515 5.6K
K502
D509
Q502
Q503
D511 D512 D513 D514
D516 D515
C511 33μ16
R517 47
C512 10μ50
D510
R518 470
C513 220μ25
C514 220μ25
C516 0.01
C515 0.01
REMOTE TRANS
T501
C519 4700P 250V
J501
F2 250V 2.5A (P TYPE)
F1 125V 5A
CP1 COLD
CP2 HOT
AC120V/60Hz
8 WHT
2 RED
AC120V 60Hz
A501
(SWITCHED)
J517 (K, R TYPE)
J516 (P YTPE)
21. 0V 0V 0V 0V 3. 3V 2. 1V 0. 8V 0. 74V 42. 3V 1. 7V 3. 9V 1. 4V 0. 65V 5. 6V 10. 5V 6. 2V 6. 2V
K, P TYPE
MAIN TRANS
WHT TF RED BLU BLU
W103 -26V GND +26V
W107 AC AC AC AC GND
D46 D45 D43 D44
C146 0. 01
C145 0. 01
F5 500mA/250V
F6 500mA/250V
SIGNAL LINE
GND LINE
+B LINE
-B LINE

	8Ω	4Ω
A	55. 1V	42. 3V
B	-55. 1V	-42. 3V

POWER SUPPLY PCB ASS'Y

IC501 : μPC1237HA

Q501, 502 : 2SC2316

Q503 : 2SD882

D501, 502, 509, 511–514 : 1N4002

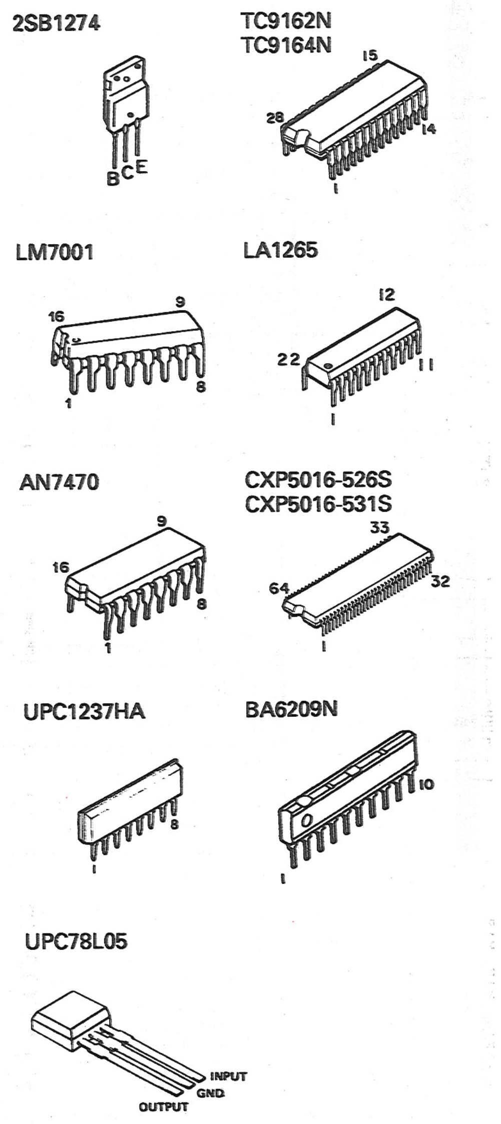
D503–508 : 1SS133T

D515, 516 : 1SS133

D510 : Z6. 2V

MAIN TRANS

D43–46 : 1N4002


2SB1274
B C E
TC9162N
TC9164N
15 28 14 1
LM7001
16 9 1 8
LA1265
12 22 11 1
AN7470
9 16 1 8
CXP5016-526S
CXP5016-531S
33 64 32 1
UPC1237HA
1 8
BA6209N
1 10
UPC78L05
INPUT GND OUTPUT

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

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2/2 (Except E, T)

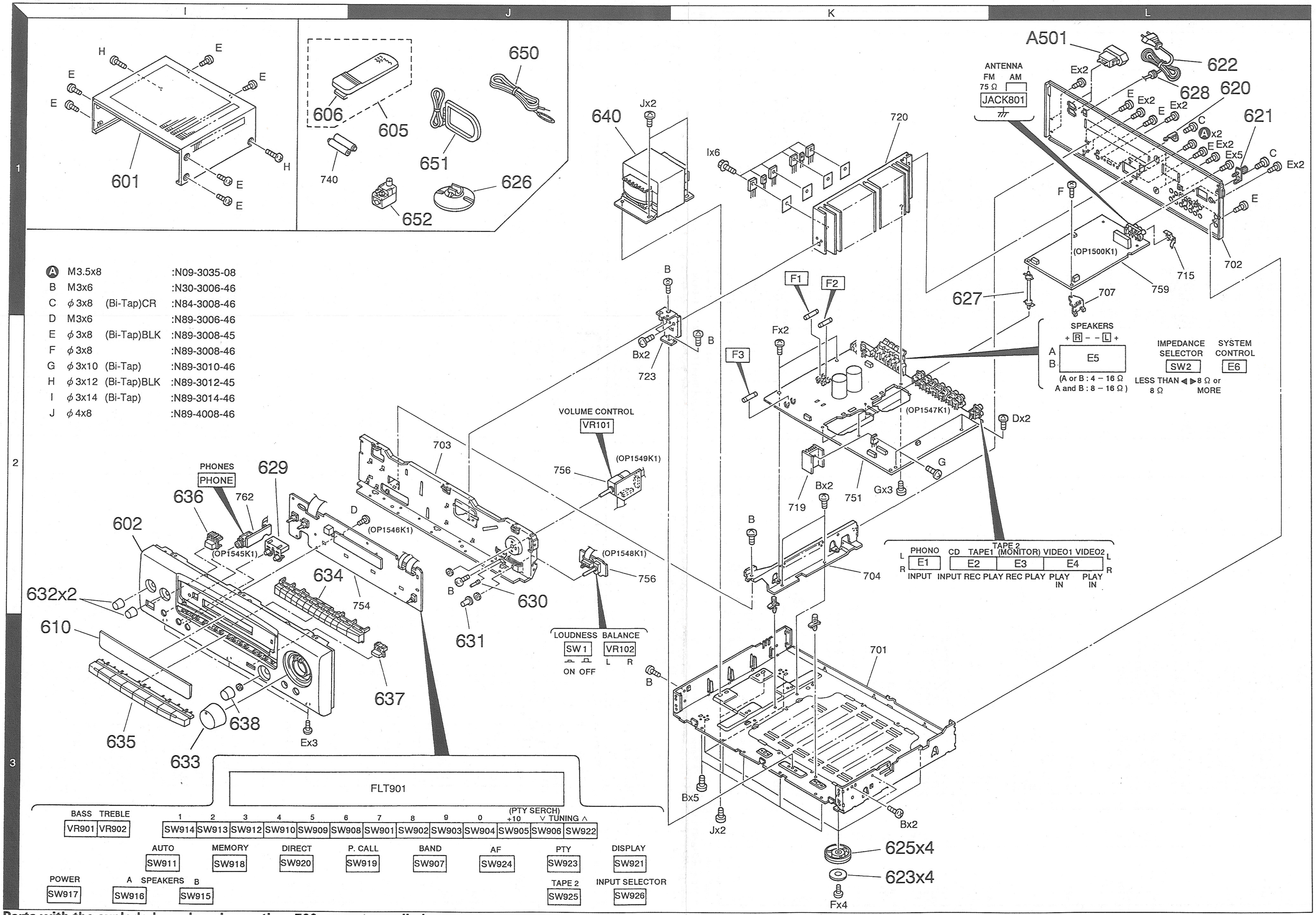
Y05-2880-10

KR-A5060

KENWOOD

KR-A4060/A5060 KR-A4060/A5060

EXPLODED VIEW (UNIT)


I
J
K
L
1
2
3
601
H
E
605
606
650
651
740
652
626
640
Jx2
Ix6
720
A501
622
628
620
621
ANTENNA
FM AM
75 Ω
JACK801
Ex2
Ax2
Ex5
C
F
(OP1500K1)
702
715
759
707
627
B
Bx2
723
F1
F2
F3
Fx2
SPEAKERS
+ R – – L +
A
B
E5
(A or B : 4 – 16 Ω
A and B : 8 – 16 Ω)
IMPEDANCE SELECTOR
SW2
LESS THAN 8 Ω
8 Ω or MORE
SYSTEM CONTROL
E6
(OP1547K1)
Dx2
G
Gx3
719
751
VOLUME CONTROL
VR101
(OP1549K1)
756
703
PHONES
PHONE
629
636
762
602
(OP1545K1)
D
(OP1546K1)
634
754
630
631
(OP1548K1)
632x2
610
635
638
633
637
Ex3
LOUDNESS BALANCE
SW1
VR102
ON OFF
L R
704
PHONO CD TAPE1 TAPE 2 (MONITOR) VIDEO1 VIDEO2
L R
E1 E2 E3 E4
INPUT INPUT REC PLAY REC PLAY PLAY IN PLAY IN
701
Bx5
Jx2
Bx2
625x4
623x4
Fx4
FLT901
BASS TREBLE
VR901 VR902
1 2 3 4 5 6 7 8 9 0 (PTY SERCH) +10 ∨ TUNING ∧
SW914 SW913 SW912 SW910 SW909 SW908 SW901 SW902 SW903 SW904 SW905 SW906 SW922
AUTO
SW911
MEMORY
SW918
DIRECT
SW920
P. CALL
SW919
BAND
SW907
AF
SW924
PTY
SW923
DISPLAY
SW921
POWER
SW917
A SPEAKERS B
SW916 SW915
TAPE 2
SW925
INPUT SELECTOR
SW926

Ⓐ	M3.5x8		:N09-3035-08
B	M3x6		:N30-3006-46
C	ϕ3x8	(Bi-Tap)CR	:N84-3008-46
D	M3x6		:N89-3006-46
E	ϕ3x8	(Bi-Tap)BLK	:N89-3008-45
F	ϕ3x8		:N89-3008-46
G	ϕ3x10	(Bi-Tap)	:N89-3010-46
H	ϕ3x12	(Bi-Tap)BLK	:N89-3012-45
I	ϕ3x14	(Bi-Tap)	:N89-3014-46
J	ϕ4x8		:N89-4008-46

Parts with the exploded numbers larger than 700 are not supplied.

⋇ New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

①

	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
	KR-A4060						
	601	1I	*	A01-3167-08	METALIC CABINET		
	602	2I	*	A60-0633-08	FRONT PANEL		
	605	1J	*	A70-0985-08	REMOTE CONTROL ASSY		
	606	1I		A09-0170-08	BATTERY COVER		
	610	3I	*	B10-2040-08	FRONT GLASS		
	620	1L	*	E21-0031-08	GND TERMINAL	E	
	-			B46-0122-23	WARRANTY CARD	E	
	-			B46-0143-13	WARRANTY CARD	T	
	-		*	B60-0580-08	INSTRUCTION MANUAL (EN)		
	-		*	B60-0581-08	INSTRUCTION MANUAL (F/G/D)	E	
	-		*	B60-0582-08	INSTRUCTION MANUAL (SP/IT)	E	
	621	1L		E21-0023-08	GND TERMINAL ASSY		
⚠	622	1L		E30-0459-05	AC POWER CORD	E	
⚠	622	1L	*	E30-2718-05	AC POWER CORD	T	
⚠	A501	1L		E03-0055-05	AC OUTLET	E	
⚠	A501	1L	*	E03-0133-08	AC OUTLET	T	
	623	3K	*	G13-0267-08	CUSHION FOOT		
			*	H10-5855-08	POLYSTYRENE FOAMED FIXTURE		
			*	H50-1074-08	ITEM CARTON CASE		
	-			H25-0232-04	PROTECTION BAG (ACCESSORY)		
	-			H25-0232-04	PROTECTION BAG (MANUAL)		
	-		*	H25-1532-08	PROTECTION BAG (UNIT)		
	625	3K	*	J02-1099-08	FOOT		
	626	1J		J19-2815-04	LOOP ANTTENNA HOLDER		
	627	1K		J19-3631-08	PCB HOLDER		
⚠	628	1L	*	J42-0198-08	AC CORD BUSHING		
	629	2I	*	K29-5998-08	KNOB SPEAKERS		
	630	2J		K27-2166-08	KNOB LOUDNESS		
	631	3J		K29-4444-08	KNOB BALANCE		
	632	3I		K29-5952-08	KNOB BASS,TREBLE		
	633	3I		K29-5953-08	KNOB VOLUME ASSY		
	634	2I	*	K29-5954-08	KNOB PRESET		
	635	3I	*	K29-5955-08	KNOB FUNCTION		
	636	2I		K29-5956-08	KNOB POWER		
	637	3J	*	K29-5996-08	KNOB TAPE2		
	638	3I		K27-2111-08	KNOB INPUT SELECTOR		
⚠	640	1J	*	L07-1801-08	POWER TRANSFORMER	E	
⚠	640	1J	*	L07-1802-08	POWER TRANSFORMER	T	
	A	1L		N09-3035-08	TAPTITE SCREW		
	B	2J		N30-3006-46	PAN HEAD MACHIN SCREW		
	C	1L		N84-3008-46	BINDING HEAD TAPTITE SAREW		
	D	2J		N89-3006-46	BINDING HEAD TAPTITE SCREW		
	E	1L,3I		N89-3008-45	BINDING HEAD TAPTITE SCREW		
	F	2K		N89-3008-46	BINDING HEAD TAPTITE SCREW		
	G	2K		N89-3010-46	BINDING HEAD TAPTITE SCREW		
	H	1K		N89-3012-45	BINDING HEAD TAPTITE SCREW		
	I	1K		N89-3014-46	BINDIND HEAD TAPTITE SCREW		

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4 : KR-A4060
5 : KR-A5060

⚠ indicates safety critical components.

⋇ New Parts
Parts without **Parts No.** are not supplied.
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Teile ohne **Parts No.** werden nicht geliefert.

②

	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
	J	1J,3L		N89-4008-46	BINDING HEAD TAPTITE SCREW		
	650	1J		T90-0176-05	T TYPE ANTENNA		
	651	1J		T90-0184-08	LOOP ANTTENA		
	652	1J		T90-0185-05	ANTTENNA ADAPTER		
	KR-A5060						
	601	1I	*	A01-3167-08	METALIC CABINET		
	602	2I	*	A60-0632-08	FRONT PANEL		
	605	1J	*	A70-0985-08	REMOTE CONTROL UNIT		
	606	1I		A09-0170-08	BATTERY COVER		
	610	3I	*	B10-2040-08	FRONT GLASS		
	620	1L	*	E21-0031-08	GND TERMINAL		
	-			B46-0122-23	WARRANTY CARD		
	-		*	B60-1580-08	INSTRUCTION MANUAL (EN)		
	-		*	B60-1581-08	INSTRUCTION MANUAL (F/G/D)		
	-		*	B60-1582-08	INSTRUCTION MANUAL (SP/IT)		
	621	1L		E21-0023-08	GND TERMINAL ASSY		
⚠	622	1L		E30-0459-05	AC POWER CORD		
⚠	A501	1L		E03-0055-05	AC OUTLET		
	623	3K	*	G13-0267-08	CUSHION FOOT		
	-		*	H10-5855-08	POLYSTYRENE FOAMED FIXTURE		
	-			H25-0232-04	PROTECTION BAG (ACCESSORY)		
	-			H25-0232-04	PROTECTION BAG (MANUAL)		
	-		*	H25-1532-08	PROTECTION BAG (UNIT)		
	-		*	H50-1027-08	ITEM CARTON CASE		
	625	3K	*	J02-1099-08	FOOT		
	626	1J		J19-2815-04	ANTTENNA HOLDER		
	627	1L	*	J19-3631-08	UNIT HOLDER		
	628	1L	*	J42-0198-08	AC CORD BUSHING		
	629	2I	*	K29-5998-08	KNOB SPEAKERS		
	630	1J		K27-2166-08	KNOB LOUDNESS		
	631	3J		K29-4444-08	KNOB BALANCE		
	632	2I		K29-5952-08	KNOB BASS,TREBLE		
	633	3I		K29-5953-08	KNOB VOLUME ASSY		
	634	2I	*	K29-5954-08	KNOB PRESET		
	635	3I	*	K29-5955-08	KNOB FUNCTION		
	636	2I		K29-5956-08	KNOB POWER		
	637	3J	*	K29-5996-08	KNOB TAPE2		
	638	3I		K27-2111-08	KNOB INPUT SELECTOR		
⚠	640	2J	*	L07-0999-08	POWER TRANSFORMER		
	A	1L	*	N09-3035-08	TAPTITE SCREW		
	B	2J,2K		N30-3006-46	PAN HEAD MACHIN SCREW		
	C	1L		N84-3008-46	BINDING HEAD TAPTITE SCREW		
	D	2B		N89-3006-46	BINDING HEAD TAPTITE SCREW		
	E	1L,3I		N89-3008-45	BINDING HEAD TAPTITE SCREW		
	F	2K,3K		N89-3008-46	BINDING HEAD TAPTITE SCREW		
	G	2K		N89-3010-46	BINDING HEAD TAPTITE SCREW		
	H	1I	*	N89-3012-45	BINDING HEAD TAPTITE SCREW		
	I	1K		N89-3014-46	BINDING HEAD TAPTITE SCREW		
	J	1J,3C		N89-4008-46	BINDING HEAD TAPTITE SCREW		
	650	1J		T90-0176-05	T TYPE ANTENNA		

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③

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	651	1J		T90-0184-08	LOOP ANTTENA		
	652	1J		T90-0185-05	ANTTENNA ADAPTER		
	ELECTRIC PARTS						
	LD901			B30-0413-05	LED(LTL4213(RED))		
⚠	C1			C91-0647-05	CERAMIC 0.01UF AC250V		
	C2 -4			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C5			CE04KW1E471M	ELECTRO 470UF 25WV		
	C6			CE04KW1H100M	ELECTRO 10UF 50WV		
	C7			CE04KW1A101M	ELECTRO 100UF 10WV		
	C8			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C9			CE04KW1H101M	ELECTRO 100UF 50WV		
	C10			CE04KW1V101M	ELECTRO 100UF 35WV		
	C11			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
	C12			CE04KW1C220M	ELECTRO 22UF 16WV		
	C13 ,14			CK45F1H473Z	CERAMIC 0.047UF Z		
	C15 ,16			C90-0366-05	ELECTRO 6800UF 50WV		5
	C15 ,16			C90-3561-05	ELECTRO 4700UF 50WV		4
	C17 ,18			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C22			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
	C23			CK45FF1H223Z	CERAMIC 0.022UF Z		
	C24			CC45CH1H221J	CERAMIC 220PF J		
	C31 -34			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C35			CE04KW1V102M	ELECTRO 1000UF 35WV		
	C36			CK45FF1H104Z	CERAMIC 0.10UF Z		
	C37			CE04KW1C470M	ELECTRO 47UF 16WV		
	C38			CE04KW1H221M	ELECTRO 220UF 50WV		
	C39			CE04KW1V101M	ELECTRO 100UF 35WV		
	C40			CK45FF1H104Z	CERAMIC 0.10UF Z		
	C99			CK45FB1H272K	CERAMIC 2700PF K		
	C100			CC45CH1H102J	CERAMIC 1000PF J		
	C101,102			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
	C103-106			CC45CH1H102J	CERAMIC 1000PF J		
	C107,108			CE04KW1A101M	ELECTRO 100UF 10WV		
	C109,110			CQ92FM1H332J	MYLAR 3300PF J		
	C111,112			CQ92FM1H123J	MYLAR 0.012UF J		
	C113,114			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
	C115			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C117,118			CK45FF1H104Z	CERAMIC 0.10UF Z		
	C119-128			CC45CH1H221J	CERAMIC 220PF J		
	C131-134			CC45CH1H221J	CERAMIC 220PF J		
	C135,136			CE04KW1C470M	ELECTRO 47UF 16WV		
	C137			CC45CH1H221J	CERAMIC 220PF J		
	C138,139			CC45SL1H101J	CERAMIC 100PF J		
	C140			CC45CH1H102J	CERAMIC 1000PF J		
	C148			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C149,150			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C152			CE04BP1H010M	NP-ELEC 1.0UF 50WV		
	C153			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C154			CC45CH1H102J	CERAMIC 1000PF J		
	C155			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C156			CE04KW1C101M	ELECTRO 100UF 16WV		
	C159,160			CQ92FM1H273J	MYLAR 0.027UF J		
	C201,202			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
	C203,204			CC45SL1H680J	CERAMIC 68PF J		

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④

	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
	C205,206			CC45SL1H471J	CERAMIC 470PF J		
	C207			CE04KW1A471M	ELECTRO 470UF 10WV		
	C209,210			CE04KW0J221M	ELECTRO 220UF 6.3WV		
	C211,212			CC45CH1H221J	CERAMIC 220PF J		
	C213,214			CC45CH1H221J	CERAMIC 220PF J		
	C215,216			CC45SL1H680J	CERAMIC 68PF J		
	C217,218			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C219,220			CC45CH1H220J	CERAMIC 22PF J		
	C221,222			CC45CH1H221J	CERAMIC 220PF J		
	C223			CE04KW1H470M	ELECTRO 47UF 50WV		4
	C223			CE04KW1J470M	ELECTRO 47UF 63WV		5
	C224			CE04KW1H101M	ELECTRO 100UF 50WV		4
	C224			CE04KW1J101M	ELECTRO 100UF 63WV		5
	C225			CE04KW0J221M	ELECTRO 220UF 6.3WV		
	C227-230			CQ92FM1H683J	MYLAR 0.068UF J		
	C231-234			CK45FF1H223Z	CERAMIC 0.022UF Z		
	C301			CE04KW1A471M	ELECTRO 470UF 10WV		
	C801			CC45CH1H330J	CERAMIC 33PF J		
	C802,803			CK45FCH1H102K	CERAMIC 1000PF K		
	C804,805			CK45F1H103M	CERAMIC 0.010UF M		
	C806			CE04KW1C470M	ELECTRO 47UF 16WV		
	C807			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C808			CE04KW1C470M	ELECTRO 47UF 16WV		
	C809			CQ92FM1H223J	MYLAR 0.022UF J		
	C810			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C811			CK45FB1H473Z	CERAMIC 0.047UF Z		
	C812			CC45CH1H150J	CERAMIC 15PF J		
	C813			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
	C814			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
	C815			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
	C816			CK45F1H103M	CERAMIC 0.010UF M		
	C817,818			CK45FF1H223Z	CERAMIC 0.022UF Z		
	C819			CQ92FM1H153J	MYLAR 0.015UF J		
	C820			CK45FF1H223Z	CERAMIC 0.022UF Z		
	C821			CE04KW1C100M	ELECTRO 10UF 16WV		
	C822			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
	C823			CK45F1H103M	CERAMIC 0.010UF M		
	C824			CC45CH1H220J	CERAMIC 22PF J		
	C825-828			CK45F1H103M	CERAMIC 0.010UF M		
	C829			CE04KW1C470M	ELECTRO 47UF 16WV		
	C830			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C831-833			CC45CH1H101J	CERAMIC 100PF J		
	C834			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
	C835			CQ92FM1H103J	MYLAR 0.010UF J		
	C836			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C837			CE04KW1HR22M	ELECTRO 0.22UF 50WV		
	C838,839			CE04KW1H010M	ELECTRO 1.0UF 50WV		
	C840			CE04KW1C101M	ELECTRO 100UF 16WV		
	C841			CC45SL1H561K	CERAMIC 560PF K		
	C842,843			CE04KW1C100M	ELECTRO 10UF 16WV		
	C844,845			CC45SL1H181J	CERAMIC 180PF J		
	C846,847			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
	C848,849			CQ92FM1H392J	MYLAR 3900PF J		
	C850			CK45F1H103M	CERAMIC 0.010UF M		
	C851			CE04KW1C470M	ELECTRO 47UF 16WV		

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PARTS LIST

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⑤

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
C852			CK45F1H103M	CERAMIC 0.010UF M		
C853,854			CC45CH1H220J	CERAMIC 22PF J		
C855			CC45FB1H471K	CERAMIC 470PF K		
C856			CC45SL1H221J	CERAMIC 220PF J		
C857,858			CC45CH1H101J	CERAMIC 100PF J		
C859			CE04KW1H0R1M	ELECTRO 0.1UF 50WV		
C860			CK45F1H103M	CERAMIC 0.010UF M		
C861			CE04KW1C470M	ELECTRO 47UF 16WV		
C862			CK45F1H103M	CERAMIC 0.010UF M		
C863,864			CE04KW1C100M	ELECTRO 10UF 16WV		
C865,866			CK45F1H103M	CERAMIC 0.010UF M		
C868			CC45SL1H270J	CERAMIC 27PF J		
C869			CC45FF1H103Z	CERAMIC 0.010UF Z		
C871			CC45SL1H271J	CERAMIC 270PF J		
C872			CE04KW1C100M	ELECTRO 10UF 16WV		
C873			CK45F1H103M	CERAMIC 0.010UF M		
C874,875			CC45SL1H270J	CERAMIC 27PF J		
C876			CK45F1H103M	CERAMIC 0.010UF M		
C877,878			CE04KW1C100M	ELECTRO 10UF 16WV		
C879,880			CK45F1H103M	CERAMIC 0.010UF M		
C903,904			CE04KW1C330M	ELECTRO 33UF 16WV		
C905			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C906			C90-1827-05	BACKUP 0.1F 5.5WV		
C907			CE04KW1A101M	ELECTRO 100UF 10WV		
C908			CK45F1H103M	CERAMIC 0.010UF M		
C911,912			CK45FF1H103Z	CERAMIC 0.010UF Z		
C913,914			CK45FF1H223K	CERAMIC 0.022UF K		
C921,922			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C923,924			CQ92FM1H153J	MYLAR 0.015UF J		
C925,926			CQ92FM1H683J	MYLAR 0.068UF J		
C927,928			CK45F1H822M	CERAMIC 0.0082UF M		
C929,930			CC45SL1H220J	CERAMIC 22PF J		
C931,932			CC45CH1H101J	CERAMIC 100PF J		
C933,934			CQ92FM1H333J	MYLAR 0.033UF J		
C946			CK45FF1H103Z	CERAMIC 0.010UF Z		
C950			CK45F1H103M	CERAMIC 0.010UF M		
E1			E70-0035-08	PHONO JACK PHONO		
E2			E70-0037-08	PHONO JACK CD,TAPE1		
E3 ,4			E70-0038-08	PHONO JACK TAPE2,VIDEO1,2		
E5			E70-0004-08	LOCK TERMINAL BOARD SPEAKERS		
E6			E11-0188-05	MINIATUA PHONE JACK SYNCHRO		
JACK801			E70-0023-08	TERMINAL BOARD ANTENNA		
PHONE	2I		E11-0263-08	PHONE JACK HEAD PHONES		
⚠ F1	1J		F05-1623-05	FUSE SEMCO T1.6A/250V		4
⚠ F1	1J		F06-2021-05	FUSE SEMCO T2A/250V		5
⚠ F2	1J		F05-2525-05	FUSE SEMCO T2.5A/250V	E	
⚠ F3	2J		F06-1022-05	FUSE SEMCO T1A/250V		
-			J13-0084-08	FUSE CLIP		
CF801,802			L72-0575-08	CERAMIC FILTER 10.7MHz		
L201,202			L39-1303-08	INDUCTOR 0.15UH		
L301			L33-0379-08	INDUCTOR 22UH		
L801		*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L802			L39-1322-08	COIL		

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4 : KR-A4060
5 : KR-A5060

⚠ indicates safety critical components.

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⑥

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
L803			L33-0381-08	SMALL FIXED INDUCTOR 1mH		
L804			L30-0904-08	IFT AM		
L805			L30-0905-08	IFT FM		
L806			L30-0906-08	IFT FM		
L807			L39-1323-08	COIL		
L808,809			L35-0070-08	COIL		
L810		*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L811,812		*	L40-1001-17	SMALL FIXED INDUCTOR 10UH		
L901		*	L40-1001-17	SMOLL FIXED INDUCTER 10UH		
L902,903		*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L905-908		*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
⚠ T1			L07-0825-08	TRANSFORMER	T	4
⚠ T1			L07-0828-08	TRANSFORMER	E	
X801			L78-0616-08	RESONATOR 456kHz		
X802			L77-2126-08	CRYSTAL 7.200MHz		
X803			L77-2127-08	CRYSTAL 4.332MHz		
X804			L78-0617-08	RESONATOR 4.00MHz		
X901			L78-0209-05	RESONATOR 4.19MHz		
G	2K		N89-3010-46	BINDING HEAD TAPTITE SCREW		
CP1 ,2			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R3			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R31			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R32			RS14DB3D122J	FL-PROOF RS 1.2K J 2W		
R177			RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
R217-222			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R229-232			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R245-248			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R249			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R250			RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R253,254			RS14DB3A100J	FL-PROOF RS 10 J 1W		
R255,256			RS14DB3A561J	FL-PROOF RS 560 J 1W		
R824			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R827			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R840			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R851			RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R866			RD14GB3D221J	FL-PROOF RD 220 J 2W		
VR101		*	R39-0001-08	POTENTIOMETER 100KBX2 VOLUME		
VR102			R10-5071-08	POTENTIOMETER BALANCE		
VR201,202			R12-1066-05	TRIM POT. 1KB IDLE ADJ		
VR801			R12-1053-05	TRIM POT. 4.7KB AM TUNE LEVEL		
VR802			R32-0012-08	TRIM POT. 100KB FM TUNE LEVEL		
VR803			R32-0012-08	TRIM POT. 100KB SEPARATION		
VR901,902		*	R39-0002-08	POTENTIOMETER BASS TREBLE		
⚠ K1			S76-0034-08	MAGNETIC RELAY		
K2 ,3			S76-0035-08	MAGNETIC RELAY		
SW1		*	S68-0040-08	PUSH SWITCH LOUDNESS		
SW2			S62-0032-08	SLIDE SWITCH IMPEDANCE SELECT		
SW901-925		*	S70-0030-08	TACT SWITCH KEY BOARD		
SW926		*	S60-0030-08	ROTARY SWITCH INPUT SELECTOR		
D1			1SS133	DIODE		
⚠ D2 -5			1N4002A	DIODE		
⚠ D14 ,15			1N4002A	DIODE		

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KR-A4060/A5060

PARTS LIST

⁎ New Parts
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⑦

	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
	D16 ,17			1SS133	DIODE		
	D25 ,26			1SS133	DIODE		
⚠	D30			DBF40C	DIODE		4
⚠	D30			DBF60C	DIODE		5
	D31 -36			1N4002A	DIODE		
⚠	D6-8,10			1SS133	DIODE		
	D101-104			1SS133	DIODE		
	D107-110			1SS133	DIODE		
	D12,13			1SS133	DIODE		
	D201,202			1SS133	DIODE		
	D203,204			1N4002A	DIODE		
	D205,206			1SS133	DIODE		
	D801-809			1SS133	DIODE		
	D810			RD5.1ES(B2)	ZENER DIODE		
	D811			1SS133	DIODE		
	D812			RD13ES(B2)	ZENER DIODE		
	D901-920			1SS133	DIODE		
	D921			MTZJ6.2B	ZENER DIODE		
	D922			MTZJ2.7B	ZENER DIODE		
	D98,99			1SS133	DIODE		
	FLT901			10-MT-58GK	FLUORESCENT INDICATOR TUBE		
⚠	IC1			MC7815C	IC(VOLTAGE REGULATOR/+15)		
	IC101			NJM4558DD	IC(OP AMP X2)		
	IC102		⁎	NJU7313L	IC(ANALOG SWITCH) SELECTOR SW)		
	IC102			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
	IC104		⁎	NJU7311L	IC(ANALOG SWITCH)ARRAY)		
	IC104			TC9162N	IC(ANALOG SWITCH ARRAY)		
	IC105		⁎	NJU7312AL	IC(BILATERAL SWITCH X16)		
	IC105			TC9163N	IC(BILATERAL SWITCH X16)		
	IC106			BA6209N	IC(MOTOR DRIVER)		
	IC801			LA1266	IC(AM/FM IF)		
	IC802			LA3401	IC(FM MPX)		
	IC803			LC7218	IC(PLL SYNTHESIZER)		
	IC804			LM258N	IC		
	IC805			TDA7330A	IC(RDS DEMODULATOR)		
	IC806			LC6543H-4600	IC(MICROPROCESSOR)		
	IC810			NJM78L05A	IC(VOLTAGE REGULATOR/ +5V)		
	IC810			UPC78L05	IC(VOLTAGE REGULATOR/ +5V)		
	IC901			UPD78044GF-021	IC(8BIT MICROPROCESSOR)		
	IC902			PST529C	IC(SYSTEM RESET)		
	IC903			NJM4558DD	IC(OP AMP X2)		
	Q1			2SD882	TRANSISTOR		
	Q2 -5			DTC114ES	DIGITAL TRANSISTOR		
⚠	Q6			2SA916	TRANSISTOR		
	Q8			2SA933S	TRANSISTOR		
	Q10			2SA933S	TRANSISTOR		
	Q101-104			2SC2878	TRANSISTOR		
	Q105,106			DTA114ES	DIGITAL TRANSISTOR		
	Q107-109			DTC114ES	DIGITAL TRANSISTOR		
	Q201-204			2SA992	TRANSISTOR		
	Q205,206			2SC1845	TRANSISTOR		
	Q207,208			2SA992	TRANSISTOR		
	Q209,210			2SC1845	TRANSISTOR		
	Q211,212			2SC4137(V)	TRANSISTOR		

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⑧

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	Q213,214		⁎	2SC2316	TRANSISTOR		
	Q215,216			2SA916	TRANSISTOR		
⚠	Q217,218			2SC4467	TRANSISTOR		4
⚠	Q217,218		⁎	2SC4468	TRANSISTOR		5
⚠	Q219,220			2SA1694	TRANSISTOR		4
⚠	Q219,220		⁎	2SA1695	TRANSISTOR		5
	Q221,222			2SC1845	TRANSISTOR		
	Q223,224			2SC1740S	TRANSISTOR		
	Q801			2SC1740S	TRANSISTOR		
	Q802			2SA933S	TRANSISTOR		
	Q803			2SC1740S	TRANSISTOR		
	Q804			2SC3194O	TRANSISTOR		
	Q805			2SC1845F	TRANSISTOR		
	Q806-808			2SC1740S	TRANSISTOR		
	Q809,810			2SA933S	TRANSISTOR		
	Q811			2SD2061E	TRANSISTOR		
	Q901,902			2SC1740S	TRANSISTOR		
	ZD1			MTZJ3.9B	ZENER DIODE		
	ZD2 ,3			MTZJ5.1B	ZENER DIODE		
	ZD4			RD6.2ES(B2)	ZENER DIODE		
	ZD6 ,7			MTZJ16A	ZENER DIODE		
	ZD8 ,9			MTZJ5.1B	ZENER DIODE		
	ZD10			RD6.8ES(B2)	ZENER DIODE		
	ZD11			MTZJ8.2B	ZENER DIODE		
	A901			W02-1111-08	ELECTRIC CIRCUIT MODULE		
	TUNER801			W02-1041-15	FM FRONT END		

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SPECIFICATIONS

KR-A4060

Audio section

Rated power output	
(IEC/NF) from 63Hz~12,500Hz 0.7% T.H.D. at 8Ω	60W + 60W
(DIN) 1,000Hz at 8Ω	60W + 60W
1,000Hz at 4Ω	55W + 55W
Total harmonic distortion (1kHz, 8Ω)	0.01% at 40W
Signal to noise ratio	
Phono (MM)	56dB (DIN, 50mW output)
CD, TAPE, VIDEO	57dB (DIN, 50mW output)
Input sensitivity/impedance	
Phono (MM)	2.5mV/47kΩ
CD, TAPE, VIDEO	200mV/47kΩ
Tone controls	
BASS	±10dB (at 100Hz)
TREBLE	±10dB (at 10kHz)
Loudness control at 30dB	
Volume level	+9dB (at 100Hz)

FM tuner section

Tuning frequency range	87.5MHz~108MHz
Usable sensitivity (DIN at 75Ω)	
MONO	1.1μV
STEREO	4.5μV
Total harmonic distortion at 1kHz (DIN)	
MONO	0.15%
STEREO	0.5%
Signal to noise ratio (DIN weighted at 1kHz)	
MONO	68dB (65.2dBf input)
STEREO	61dB (65.2dBf input)
Selectivity (DIN ±300kHz)	53dB
Stereo separation (DIN) at 1kHz	40dB
Frequency response	30Hz~15kHz, +0.5dB, –2.0dB

AM tuner section

Tuning frequency range	531kHz~1,602kHz
Usable sensitivity	12μV (400μV/m)
Total harmonic distortion	0.3%
Signal to noise ratio (at 30% mod. 1mV input)	50dB
Selectivity	30dB

General

Power consumption	120W
AC outlet (Switched)	2 : (total 200W max.)
Dimensions	W : 440mm x H : 133mm X D : 350mm
Weight (net)	6.8kg

KR-A5060

Audio section

Rated power output	
(IEC/NF) from 63Hz~12,500Hz 0.7% T.H.D. at 8Ω	100W + 100W
(DIN) 1,000Hz at 8Ω	100W + 100W
1,000Hz at 4Ω	90W + 90W
Total harmonic distortion (1kHz, 8Ω)	0.01% at 50W
Signal to noise ratio	
Phono (MM)	56dB (DIN, 50mW output)
CD, TAPE, VIDEO	57dB (DIN, 50mW output)
Input sensitivity/impedance	
Phono (MM)	2.5mV/47kΩ
CD, TAPE, VIDEO	200mV/47kΩ
Tone controls	
BASS	±10dB (at 100Hz)
TREBLE	±10dB (at 10kHz)
Loudness control at 30dB	
Volume level	+9dB (at 100Hz)

FM tuner section

Tuning frequency range	87.5MHz~108MHz
Usable sensitivity (DIN at 75Ω)	
MONO	1.1μV
STEREO	4.5μV
Total harmonic distortion at 1kHz (DIN)	
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Frequency response	30Hz~15kHz, +0.5dB, –2.0dB

AM tuner section

Tuning frequency range	531kHz~1,602kHz
Usable sensitivity	12μV (400μV/m)
Total harmonic distortion	0.3%
Signal to noise ratio (at 30% mod. 1mV input)	50dB
Selectivity	30dB

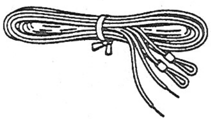
General

Power consumption	180W
AC outlet (Switched)	2 : (total 200W max.)
Dimensions	W : 440mm x H : 133mm X D : 350mm
Weight (net)	8.2kg

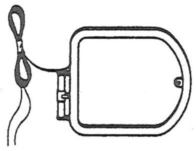
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

ACCESSORIES

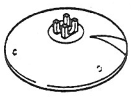
- FM indoor antenna 1
  (T90-0182-05 : **Except E, T** type)
  (T90-0176-05 : **E, T** type)



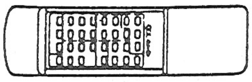
- AM loop antenna 1
  (T90-0184-08)



- Loop antenna holder 1
  (J19-2815-04)

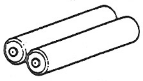


- Remote control ass'y (RC-R5030) .. 1
  (A70-0985-08)

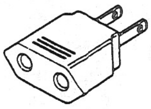


- Battery cover (A09-0170-08)

- Batteries (R6/AA) 2

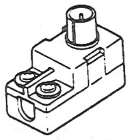


- AC plug adaptor 1
  (E03-0115-05 : **Except E, T** type only)



Except for U.K., Europe and Australia.
For the unit with a European AC plug in areas other than Europe.

- Antenna adaptor (75Ω/300Ω) 1
  (T90-0185-05 : **E, T** type only)



For U.K. and Europe.

Note :
Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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